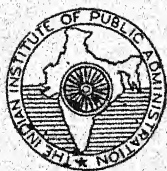


H. K. PARANJAPE

THE FLIGHT OF TECHNICAL PERSONNEL IN PUBLIC UNDERTAKINGS

A STUDY REPORT

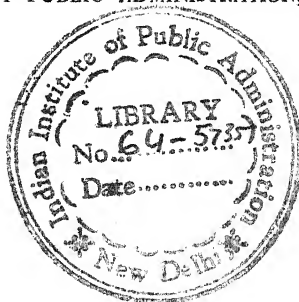


THE INDIAN INSTITUTE OF PUBLIC ADMINISTRATION
NEW DELHI

THE FLIGHT OF TECHNICAL PERSONNEL IN
PUBLIC UNDERTAKINGS

THE FLIGHT OF TECHNICAL PERSONNEL IN PUBLIC UNDERTAKINGS

A STUDY REPORT FOR THE GOVERNMENT OF INDIA (MINISTRY
OF COMMERCE AND INDUSTRY) ON BEHALF OF THE INDIAN
INSTITUTE OF PUBLIC ADMINISTRATION, NEW DELHI



H. K. PARANJPE

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FOREWORD

The problem of the 'flight' or migration of technically-qualified and experienced personnel from public enterprises to the private sector has been engaging the attention of Government in India for some time. It first arose in the period of the First Five Year Plan in connection with public undertakings like the Damodar Valley Corporation and Ordnance factories. With the rapid increase in programmes of economic development from 1956 the problem assumed greater significance. The Engineering Personnel Committee (1956) as well as the Second Pay Commission (1959) gave much thought to it. The Government of India suggested to the Indian Institute of Public Administration in 1961 that it should undertake a study of the problem.

The Institute entrusted the task of conducting the study to Dr. H.K. Paranjape. An Advisory Committee for the study-project was appointed and the members of the Committee gave him general guidance about the lines on which the study should be conducted. Further information about the conduct of the study will be found in the Introduction. The study was completed and its report entitled "A Study of the Flight of Technical Personnel and Related Problems Affecting Public Undertakings" was submitted to Government in August 1962.

As the study is based on first-hand data collected from a number of enterprises and deals with a problem of considerable importance and interest to administrative officials, managers and others interested in public enterprises, the Institute thinks that it will be useful to publish the study for the information of all who are interested in the subject without, however, committing the Institute to the opinions expressed by Dr. Paranjape. The Government of India has permitted its publication and the Institute is grateful to it for this as well as the opportunity to undertake this study. The study is published in the form in which it was submitted to Government; but the author has added a Postscript to bring the study up to date.

V.K.N. MENON
Director

The Indian Institute of Public Administration
New Delhi, September 5, 1963

ACKNOWLEDGEMENTS

The conduct of this study required the assistance and cooperation of a large number of persons operating at various levels in the Government of India, and in public and private sector enterprises. Such assistance and cooperation were willingly offered by most of the persons that I approached, in spite of their being busy and preoccupied with their own heavy burdens of office. It is not possible to mention the names of such persons here individually, partly because the list would be too long, and partly also because a significant number among them expressed a preference to remain anonymous. I am grateful to all these persons for their kind cooperation.

I am grateful to Shri S. S. Khera, Shri L. P. Singh, Shri Ranchor Prasad, Shri Indarjit Singh, Shri D. Sandilya and Shri M. S. Ramayyar, Members of the Advisory Committee constituted by the Institute for this study-project, and also to Prof. V. K. N. Menon, Director of the Institute, for their encouragement, guidance and help.

The cooperation and assistance of Shri L. Venkatesan, my research assistant during the period of this study, was invaluable in conducting this study.

I may add that the responsibility for the analysis and conclusions put forward in the study is entirely mine. The opinions expressed should not be taken to be necessarily accepted by any of the persons who were kind enough to help me or by the Institute which assigned this task to me.

July 28, 1962

H.K. PARANJPE

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INTRODUCTION

0.1 The main object of this study was to investigate the extent to which there exists what has come to be known as "the Flight of Technical Personnel" due to migration of such personnel from one public sector undertaking to another and further to find out to what extent this is due to disparity in pay scales and other conditions of service. It was decided, in consultation with Government, that it would be convenient also to include in this study the problem of migration from the public sector to the private sector. The study was to cover public undertakings under the Ministries of Commerce and Industry, Steel, Mines and Fuel, Transport and Communications, Defence, Irrigation and Power, Railways and Works, Housing and Supply. Only the higher level technical personnel were to be brought within the scope of the study.

0.2 It was also decided that this was to be a preliminary study to establish broadly whether the question of migration was really acute and, if so, what the main causes were. It was assumed that within the time and resources available, a more detailed study was not possible; it was also not at this stage necessary.

Method Pursued for the Study

0.3 The data required for the study were obtained in two ways. A general questionnaire was issued to all the undertakings and factual information was attempted to be obtained on that basis. To supplement the information obtained in this way, and in some cases to obtain at least some information when nothing was forthcoming, visits were paid to some public sector undertakings. This provided an opportunity to assess the opinions and experience of persons at various levels in the enterprises regarding these problems. Interviews were also sought with some of the senior officials in the Ministries concerned to obtain their assessment of the problem. Some data were also collected from a few private undertakings so as to obtain a comparative picture. A list of the enterprises which provided information in answer

to our questionnaire and a list of those visited are given in Appendix III.

Limitations of the Study

0.4 The scope of the study being so wide, it has not been possible to prepare any quantitative estimate of migration. The various enterprises provided such data as they could readily make available. Therefore complete data regarding migration during any particular period of time could not become available to us. The information regarding major causes of migration, existing and potential, could only be collected on the basis of interviews with persons operating at various levels in the enterprises. Thus the study has tended to be qualitative rather than quantitative. However, even with these limitations, it is felt that the results of the study will be useful in indicating the nature of the problem as it is affecting public sector enterprises at the present stage of the development of our economy and also to indicate the broad lines of changes in policy that are necessary to solve the problems that are facing them. The study will also perhaps indicate the lines along which more specific investigations could be undertaken for the purpose of working out detailed policy measures.

Arrangement of the Report

0.5 In Part I we examine the existing situation regarding migration of personnel from public enterprises—how far there is a 'Flight of Technical Personnel', what enterprises and what types of personnel are specially affected, and also what are the other related problems, such as non-availability of personnel, affecting certain enterprises.

0.6 Following this, in Part II we go on to examine the causes of migration, existing and potential, including the problem of disparities in pay.

0.7 In Part III, we examine the various possible ways of ensuring the steady availability of qualified technical personnel for public undertakings, including the problems of salaries and bonuses, promotion policy, recruitment and training and movement of personnel within the public sector.

PART I

IS THERE A FLIGHT ?

I. WHAT IS 'FLIGHT OF TECHNICAL PERSONNEL' ?

1.1 At the very beginning, let us define what we mean by the term 'Flight' of personnel. Movement of personnel of various categories from one employment to another can take place due to a number of reasons. The possibility of improving one's prospects can provide an incentive to individuals to move from one employment to another. Such a move may be beneficial not only to the individual concerned but also to the community. Replacement of a system under which persons remain immobile as between different kinds of work, different employers and different regions by a system under which they are free to move to new types of work, new employers and regions where there is greater demand for productive labour is an essential part of the modernisation of an economy. Further, in a dynamic economy, where new types of industries are all the time growing up, mobility of labour and its movement from decaying to growing industries are essential for the health of the economy. In an economy like ours where rapid industrial growth is being attempted under a national plan, new industrial units can grow up rapidly only if they can obtain at least a basic core of their personnel requirements from already existing industries and other kinds of employment. Movement of individuals from one employment to another in the pursuit of higher net real income can also be considered to be beneficial to the extent that it can be assumed that the higher payment in the new employment is indicative of a larger contribution by the individual to the national product. It is true that due to imperfections of the labour market, there is no trend towards uniformity of real wages for similar kinds of work all through the economy. Therefore certain movements may be of a kind where the individual may gain, but the society may not gain, or may even undergo a loss. But in a free society, movements of this type cannot be forcibly stopped; in some ways, such movements may even help to reduce the imperfections in the labour market. Generally it could be said that movement

of personnel as such is not harmful and anyway, in the context of a rapidly developing and changing economy, inevitable. It is only when such movements take place on a large scale, affect existing enterprises significantly due to a large turnover in their personnel complement—either affecting all or some specially important categories—and thus influence their operational efficiency adversely, that the situation can be considered to be undesirable. This would be more so if the large scale movement of personnel is from industries which are vitally placed in their role in the economy. If due to any reason, the real income and conditions of service in these industries tend to be less attractive than those in other industries, and therefore there is significant outward migration of personnel from these industries, this can be a matter of alarm, requiring remedial action.

1.2 The public sector in India comprises mostly of industries vital to the economic growth and defence of the country. No doubt private sector industries, in our system of economy, have also an important part to play in the economic growth of our country and the economic well-being of our people. But, by and large, most of the public sector industries, together with a few private sector industries in fields like iron and steel, oil, coal and some engineering industries, are basic to the creation of the growth potential of the country. Therefore any outward migration of important categories of personnel from these industries which assumes a scale which is so large as to upset their current operational efficiency and future operation and growth patterns has to be checked. To locate the extent to which such a phenomenon exists at the present moment or is expected to come about in the near future is the primary purpose of this study.

1.3 Large-scale movement of personnel from one employment to another which takes place in such a way and on such a scale as to affect the operational efficiency and future growth of an organisation can be considered to constitute 'Flight of Personnel' from a given organisation. If this phenomenon becomes general, in certain kinds of industries or sectors of the economy because of specially rapid growth in such

industry or sector, or in the economy as a whole thus creating a demand for personnel which is far larger than its supply, the 'Flight of Personnel' may become a general problem affecting the economy as a whole. The problem may affect a large group of industries, or a particular sector; it may relate to all types of personnel or only certain key categories where the imbalance between demand and supply is significant, or where the particular categories are vital in the successful operation and growth of those industries or sectors.

1.4 It has not been possible for us to lay down any precise criterion to distinguish between normal and healthy, and undesirable and unhealthy, movement of personnel. Anyway, the data that we could collect were such that even if we had any such criterion, we could not have applied it to the data. Thus we have been able only to give instances of movement of certain kinds of personnel, especially those which the managements of different undertakings felt to be of an alarming character and such as to affect their undertakings adversely. We realise that this is not the best way of analysing the problem. Managements, especially when specifically asked about their problems, would normally tend to paint their difficulties in overbold colours and one has to make some allowance for that. This is what we have tried to do. We realise the imperfections and the subjectivity involved in this method of study; but in the circumstances, this was the only method we could follow.

Non-availability of Qualified Personnel

1.5 From the point of view of its effect on efficiency, non-availability of personnel of the required quality in adequate numbers can be as troublesome as 'flight'. This may take two forms :

(a) Non-availability in the country as a whole of persons with the required qualifications and experience.

(b) Non-availability of such persons for the public sector undertakings.

1.6 The former poses a general problem, the solution to which will have to be sought partly through the development

of appropriate teaching programmes; but partly it may also be related to the training and personnel development programmes of the undertakings in a particular field. This latter aspect of the problem as well as the problem of non-availability of persons to public sector undertakings as such have to be treated as essentially related to the broad field of our present study.

II. THE EXTENT OF 'FLIGHT OF TECHNICAL PERSONNEL' IN MAJOR PUBLIC UNDERTAKINGS

2.1 Out of the various public undertakings about which we could collect data on this problem, six are not in any way significantly affected by this problem up to now. They are—the National Coal Development Corporation, the Railways, the two air corporations, Hindustan Machine Tools, and Hindustan Steel. The Heavy Engineering Corporation can also be included in this category; it is still in the early stages of construction and is in the midst of a large-scale recruitment programme. The Indian Refineries and Heavy Electricals are also largely in the same position as the Heavy Engineering Corporation. However, the construction programme of these two latter undertakings has been under way for some time now and they have experienced some difficulties regarding retaining their construction personnel.

National Coal Development Corporation

2.2 The National Coal Development Corporation has been expanding its activities rapidly and it has found it necessary and possible to attract a significant number of mining engineers from the privately-owned coal mines. The Corporation has not been faced by an outward migration problem of any significant magnitude. However it has a problem regarding recruiting (and retaining) civil engineers for construction work. It finds that good-quality civil engineers do not like to join a predominantly mining organisation; and while the management does not mind getting the middle range and not the very best for the type of civil engineering work that the Corporation has to undertake, its experience is that civil engineers even of average competence do not join in adequate numbers to satisfy its needs.

Railways

2.3 The Indian Railways as a whole have not had any significant difficulty in the matter of retaining their higher

engineering personnel. As compared to the total strength of their engineering establishments, the number of those who have left railway service for other employment is very small. The railways have made available the services of some of their senior and experienced personnel to other, new, public undertakings on deputation. This of course is not a case of 'flight' but of planned movement. Some of the special units on the Railways, like Chittaranjan Locomotive Works and Integral Coach Factory at Perambur, are however facing the problem of migration. We indicate this further below.

Air Corporations

2.4 Neither the Indian Airlines Corporation nor the Air-India International have had any difficulty regarding retaining their higher technical personnel. The latter corporation has however had some difficulty regarding retaining the graduate engineering apprentices recruited by them. More than 50% of such apprentices have left the corporation either before or shortly after completing their period of training.

Hindustan Machine Tools

2.5 In Hindustan Machine Tools, there have been few losses of technical personnel at higher levels. A significant departure has been that of a Deputy General Manager for joining a private firm.

Hindustan Steel

2.6 In Hindustan Steel, most of the engineers recruited and trained for operational work have entered into an agreement to serve it for five years after the period of training. Only in the case of the batch first recruited is the contract period now coming to a close. It is only in the last two years that most of these people have actually started in operational work. Thus not much occasion has arisen yet for the problem of migration to arise in the case of operational personnel. There is no doubt however that amongst quite a significant number of the young engineers there is a widespread feeling of dissatisfaction and many of them are quite vocal about their

wish to go elsewhere once their period of contract is over. How many of them will actually want to go, and will go, when the time comes is of course another problem. We shall refer to this later when we discuss the possible causes of 'flight'.

2.7 The one category in Hindustan Steel where there has already taken place a certain loss of qualified personnel is that of construction personnel. This is especially true of the team of construction engineers that was built up at the Bhilai Plant, which was the only one among the three plants where most of the construction was carried out departmentally. This team of engineers was built up with a great deal of expenditure and careful training, both in India and in the U.S.S.R., and they learnt a great deal about steel plant construction under the direct guidance of Soviet experts situated at Bhilai. But because of the time lag between the tapering off of construction work at Bhilai and the beginning of the expansion phase in the three existing steel plants—and the delay even in taking the decision about expansion in the steel industry in the Third Plan period—there was uncertainty about the prospects open for these construction engineers in their own lines of specialisation. Some of them have therefore resigned and gone over to private construction firms. Others have been absorbed in Hindustan Steel on maintenance jobs. But the specialised team of construction engineers has been broken up and this may have an adverse effect on the construction of the fourth plant and the expansion of the other three plants.

Small Enterprises

2.8 Of the remaining enterprises, smaller ones like the National Instruments Factory, Hindustan Cables and Hindustan Housing Factory are more significantly faced by the problem of non-availability of higher categories of technical personnel which they badly need rather than by that of the migration of existing personnel, though even the latter problem does affect them to some extent. The National Instruments Factory has lost three qualified chargemen in the last few years—their qualifications being (i) B.E., (ii) M.Sc.

(Tech.), and (iii) M.Sc. (Physics), respectively. It has also lost its Industrial Engineer and finds it difficult to recruit another suitable person for that work. Hindustan Cables lost two technical officers and four Supervisors in the last two years. In some other cases, it could retain the services of qualified personnel only by promoting them to a higher grade, creating some extra posts in that grade for the purpose. The Hindustan Housing Factory has found that most of the newly recruited qualified engineers begin to look for other jobs as soon as they have obtained some experience. Hindustan Insecticides has been affected by the problem of outward migration significantly enough for its Board to appoint a special committee to go into the problem.

2.9 In the Mysore Iron and Steel Works, migration has affected personnel at middle and higher levels and a significant number have left to join private concerns. In Hindustan Antibiotics, the problems of outward migration was more serious some two or three years back than now, especially for higher level engineering personnel; the loss of trained operators, most of whom are science graduates, continues however to be sizable even now. Another important category where losses of qualified personnel continue to be significant is that of scientific staff conducting research which is of vital importance to the continued growth of the undertaking.

2.10 The Posts and Telegraphs Workshops organisation has lost a large number of qualified employees though the fact that most of the permanent employees are in pensionable service has helped to prevent more losses. In the last three years, one Assistant Manager (Works) and three Assistant Engineers (Works) resigned. Two of these had only joined a year or two earlier, and were the only two who could be available for employment when an advertisement was issued for nine Assistant Engineers (Works). In 1954-55, 34 persons had been recruited for the posts of Assistant Foremen; out of these, 16 had resigned by June 1961.

Indian Telephone Industries

2.11 Indian Telephone Industries has been losing qualified higher level technical staff at the rate of six or seven every year.

during the last few years, mostly in Grades III and IV but also a few in higher grades. The significant losses have been that of an industrial engineer to Hindustan Aircraft, a methods engineer to a private firm and a telecommunications engineer ultimately to Bharat Electronics, though in the first instance he went to a private concern. The concern has also found it difficult to attract the Government of India apprentices who are under training with it for service in the concern. (The National Instruments Factory has had similar experience.) Bharat Electronics has been losing a significant number of qualified personnel, especially amongst the younger group. A large number among them are going to other public enterprises.

Hindustan Aircraft

2.12 In Hindustan Aircraft, the problem is gradually increasing in magnitude. There has been a significant loss of persons with specialised experience. The industrial engineering department has suffered heavily as a result of the migration of qualified personnel. In the junior supervisory grades, losses have ranged between 3 to 4% in the last few years. In the higher categories, there have been a few significant losses. In some cases, where qualified personnel had been offered better jobs by other semi-Government agencies, the management has intervened and persuaded the latter to withdraw the offer though the jobs offered were carrying salaries significantly higher than those paid to these persons in Hindustan Aircraft.

Chittaranjan Locomotive Works

2.13 In the Chittaranjan Locomotive Works, 16 Class II and four Class III officers have resigned in the last few years and gone to private concerns. Two of the engineers who have resigned are production engineers. One of them was getting Rs. 1060 at Chittaranjan and he is now said to be with a foreign firm getting a total remuneration of Rs. 2600 or so.¹ A foreman has resigned and the management understood that he had joined the Durgapur steel project. The problem affects

1. Even the Chief Mechanical Engineer does not get that salary in Chittaranjan.

skilled operators more than supervisory staff or officers. Specially, artisans in pattern-making are having much demand outside and hence they tend to leave. It was specially emphasised that the problem is very acute regarding skilled workers. At the officers' level, the problem is not acute as yet, but potentially it is considered to be a difficult one as the disparities in the scales of pay are becoming more and more obvious. The view expressed by many technical officers was that the temptation for people to leave is strong and increasing.²

D.V.C.

2.14 In the Damodar Valley Corporation, the problem had arisen as early as 1952. In the last few months of 1952, as many as 27 Assistant Engineers (Civil) left the Corporation. In 1953-54, about 75 engineers and 60 overseers and supervisors (all Civil) left the Corporation within a period of six months. Between April 1959 and March 1961, 65 Assistant Engineers, 13 Executive Engineers and one Superintending Engineer have left the Corporation. The loss of Assistant Engineers is a matter of special concern since they are the backbone of the organisation.

Fertiliser Units

2.15 The Fertiliser Corporation has experienced certain difficulties in obtaining and retaining qualified and experienced mechanical, electrical, civil and public health engineers in almost all grades. It is said that for senior positions the difficulty is greater. The Sindri unit of the Corporation has lost a number of people during the last ten years, some of them to the Nangal and Trombay³ units and also some to private firms. The difficulty has been specially acute during the last few years, though even earlier it was not non-existent. The result has been that most of the personnel who developed Sindri have left and the present staff represents

2. It is said that a production engineer can get in an outside job two to three times the salary he gets at Chittaranjan. A Railway Engineer is now General Manager in an important engineering firm in the private sector and he is getting Rs. 4500 p.m. If he had remained at Chittaranjan, he would now get only Rs. 2000 p.m.

3. These were separate legal entities till recently.

the third technical generation, so to say. Cases of migration include one Superintendent (Maintenance) and one Superintendent (Production). Electrical and mechanical engineers feel that they have no prospects in a chemical organisation of this type and hence prefer to leave. Some higher personnel from Sindri Power Plant are now in Durgapur Steam Power Plant of the West Bengal Government. In one case, an electrical engineer was the third senior man and the two persons above him were to retire in about three years; but he was not prepared to wait even that long and therefore left. Good maintenance personnel have been lost in large numbers. In the case of workers there has not been much difficulty; the problem arises specially in lower supervisory and middle positions. Personnel first leave for some private concern and thereafter join a public undertaking. The tendency for 'flight' sometimes seems to arise as a chain action. For instance, a chargeman at Sindri was considered not to be good enough and hence was not promoted when his other colleagues were promoted. He went to a private firm in the neighbourhood and from there he has now gone over to Hindustan Steel at Rourkela (Fertiliser project) in a much higher grade. His former colleagues at Sindri, who were considered superior to him, are still in lower paid posts. Naturally they want to apply for higher positions in Rourkela and other places. There have been two other cases like this. In its earlier stages, Sindri attracted many technicians from private plants and collected the cream of chemical engineers in the country. Today, it finds it difficult to secure and retain qualified technical personnel, especially the better and more experienced among them.

2.16 In the National Projects Construction Corporation, the number of resignations and desertions has been quite significant.⁴

Ordnance Factories

2.17 Ordnance factories have been affected by the Flight of Personnel to a very great extent. A noticeable tendency for

4. See Estimates Committee, Second Lok Sabha: Report on the National Projects Construction Corporation (March 1962), pp. 12-13.

ordnance personnel to migrate to other enterprises arose quite early. From 1954 to 1957, 27 gazetted officers resigned from ordnance factories. The number of non-gazetted officers who resigned in 1956 alone was 37. In 1957, four Assistant Works Managers and one officiating Works Manager resigned; four of them went to private enterprises. In 1958, three Assistant Works Managers (one was temporary and one officiating) and one officiating Works Manager resigned; one of them went to a private concern. In 1959, four Assistant Works Managers (two officiating, one temporary) and one officiating Director of Production (in Superintendent's Grade, Senior Scale, on Rs. 1800) resigned; three of them went to private concerns. Again in 1960, three Assistant Works Managers (two of them temporary) and one Senior Works Manager (officiating) resigned and left. In 1961, by May 13, 1961, one temporary Assistant Works Manager had resigned and left. In a few of the above cases the persons concerned had to pay three to six months' salary to Government since their notice fell short of the required period; but they did not mind it. Amongst non-gazetted staff, during 1959-60, five Foremen, two Assistant Foremen, and nine Chargemen resigned and left the ordnance factories. The corresponding figures for 1960-61 were eight, two, and nine, respectively. Also during 1959-60, five Senior Draughtsmen, ten Draughtsmen, two Planners, 29 Supervisors (A), 32 Supervisors (B), two Estimators (one senior), and one Rate Fixer had resigned.

2.18 Ordnance Factory experience especially in metallurgy and foundry work is very useful and is in great demand in industry. With the unfavourable pay scales and promotion prospects in ordnance factories, there have been many defections of such persons. Moreover, at the time of our examination, there were a number of cases where notices of resignation had been given but the authorities had held the persons concerned to their jobs by refusing to accept resignations. But obviously this could not be expected to hold good for long.

Conclusion

2.19 Our review, limited as it was in the amount of data we

could collect, indicates that the problem of 'flight' has not yet become general and widespread as some discussions on the subject imply. Up to now, in the public sector, the number of undertakings which have been seriously affected by such 'flight' is small. The ordnance factories seem to be the worst affected. Sindri fertiliser unit is the other one where there is serious complaint about a number of 'key' personnel leaving. The D.V.C. was affected by this problem very early and it continued to suffer from it for some years. Now its construction programme and other work is not so large; but still it faces a significant degree of migration which creates difficulties in its functioning. Among the other older undertakings, the Railways and the Posts and Telegraphs as a whole have not been significantly affected; but their special units, Chittaranjan and Perambur in the former case, and P. & T. Workshops in the latter case, have been somewhat affected. The undertakings which have been functioning from before the First Five Year Plan—*e.g.*, Indian Telephone Industries, Hindustan Aircraft, etc.—have been affected more than the newer undertakings. These latter have only recently been busy recruiting personnel, training them and placing them; many of their personnel are still to complete their period of contract of service arising out of the training received by them; it is not therefore surprising that the problem has not arisen very much in their case. But everywhere, there is a widespread feeling that it is not going to be easy to retain the best personnel once the contract period is over. How far this feeling of a potential threat is justified we shall discuss later.

- 2.20 Our study indicates that the problem of migration has arisen with different degrees of intensity in different undertakings and in different categories of personnel. Departmental undertakings have been affected more than corporate undertakings; older undertakings have been affected more than newer undertakings; undertakings employing persons qualified and experienced in certain kinds of technical work,—mechanical engineering, large-scale construction, industrial engineering, chemical engineering,—are affected
- more as compared to others. Migration has affected the

retention of certain kinds of skilled workers and junior supervisors (with tool-room or foundry experience, for example) more than senior supervisory or officer ranks; Chittaranjan, and most of the public undertakings in Bangalore are examples of this. Migration has generally been more significant among graduate engineers with some years' field experience—middle level engineers—than among either fresh graduates with one or two years' experience or very senior and experienced personnel.

III. ATTEMPTS TO REGULATE MIGRATION

Understanding Between Public and Private Sector Units

3.1 Information collected from a few private sector undertakings indicated that the older undertakings amongst them, and especially those which employ certain kinds of technicians (e.g., chemical or mechanical engineers) are to some extent faced with the problem of 'flight'. Some among them complain of a 'flight' to the public sector undertakings. But as in the case of the latter, the problem up to now has not affected any undertakings so seriously as to affect their functioning to any significant extent. In the case of certain industries, the most notable example being that of steel, organised movement of experienced personnel from the older units in the private sector to the newer units in the public sector has been arranged. This has ensured that the need of the newer undertakings for experienced personnel has been satisfied to the extent that the older private undertakings could spare such personnel without upsetting the operation and growth of the latter, and without resulting in a competitive bidding up of pay-rates. Besides such organised transfers, personnel from the older undertakings, on their own initiative, have sometimes tried to obtain jobs in the new public sector undertakings. But the understanding in the steel industry has been that no such requests are considered by any unit without the consent of the existing employer.

3.2 Unlike as in the steel industry, there has been no such understanding between the older private sector undertakings in the oil industry and the newer public sector undertakings in that industry. There, because the public sector undertakings are new and require experienced personnel, they have been offering good positions and salaries as an incentive for qualified and experienced personnel to leave the private sector undertakings and join them. To some extent, therefore, this gives an instance of 'flight' from the private to the public sector. We have already noted earlier a similar tendency in regard to mining engineers in the coal industry.

Control Over Movement From Public to Private Sector Units

3.3 As regards movement from public sector units to private sector units, a certain restraint on such movement has been exercised through the use of understandings and indirect pressure. In the case of the drugs and pharmaceuticals industry, for example, an understanding seems to have now been arrived at, under which both public and some major private sector units have undertaken not to consider applications from each other's employees without the consent of the existing employer. In the case of Ordnance Factories, it seems that indirect pressure is brought to bear on some of the potential employers of qualified ordnance personnel and this has some effect as some of these employers have important contracts with the Ministry of Defence and they do not like to rub an important customer the wrong way.

Planned Movement Within the Public Sector

3.4 As regards the migration of persons from one public sector undertaking to another, we have already indicated earlier that there has been some planned migration, e.g., from the Railways, the biggest public undertaking in the country. But as compared to the total number of higher engineering personnel employed by the Railways, the number made available by them to the new public undertakings is not very large.

3.5 Chittaranjan and the Integral Coach Factory being parts of the Railway Organisation, higher technical personnel move to and from these units to other railway units. To a certain extent, especially in the early stages of these units, specially picked officers from the railways all over the country were posted at these units. The Posts and Telegraphs Workshops are also manned at the higher technical and managerial levels by officers from the Telegraph Engineering Service. The Indian Telephone Industries, Hindustan Cables and now Hindustan Teleprinters have also drawn on the same service for their higher technical, and sometimes managerial, personnel. The National Projects Construction Corporation has drawn upon Government services for a certain part of their requirements of civil engineers. Many other undertakings,

especially during their construction stage, have obtained senior engineering personnel on deputation from various Government cadres. The Ordnance Factories have, in a few cases, lent their officers to public undertakings. But the total number of technical personnel made available on deputation from various Government cadres to public undertakings has not been large, mainly because not many could be spared by their parent organisations as the technical work in these has also been generally increasing.

Understanding Among Public Sector Units About Migration

3.6 Besides such arrangements, movement can take place at the individual's own initiative. The general understanding among public undertakings, reached as a result of a directive from the Government of India, has been that no applications from employees of the Central or State Governments, or any other semi-Government organisations including public undertakings, should be entertained or negotiations entered into with them unless the existing employer organisation has given its consent. Before any person who is known to be an ex-employee of Government or a public enterprise is appointed, the policy is to enquire from the original employer organisation whether the man is suitable and whether there is any objection to employing him. This latter policy has been introduced to get over the difficulty caused by a number of cases where, in order to get over the difficulty regarding non-forwarding of applications by their original employer organisations, employees have resigned from their jobs and then secured employment in other public sector organisations. The tightening of procedure on the lines indicated above has probably prevented migration in some cases. But it has not been possible to ensure that all public sector undertakings, not only in letter but also in spirit, observe this procedure. Organisations which are badly in need of experienced personnel and find their progress blocked because of the lack of such personnel do tend to connive at individuals who, in order to better their prospects, want to resign from a job in another public sector organisation and join them. An unofficial offer may be made; this can and does especially happen in the case of skilled workers or

junior supervisory staff where the elaborate procedure of enquiry into previous employment etc. cannot be expected to be followed. State Governments and the undertakings under them sometimes prefer not to observe this procedure; this helps them readily to obtain experienced and well-trained staff so that their projects can go ahead rapidly. One comes across a number of such cases where Central Government undertakings have lost qualified personnel in key positions to State Government undertakings or departments and they have been helpless to prevent it. In the case of higher level personnel, such unauthorised movement as between Central Government undertakings is becoming rare. But then, if a person finds that his chances are being blocked as a result of his being an employee of a public sector undertaking, he sometimes prefers to take the first opportunity to join a private sector undertaking; from there he can join a new job in another public sector undertaking without much difficulty.

Government Directive About Forwarding of Applications

3.7 In order to ensure a fair deal to the employees of public sector undertakings, the Government of India (Ministry of Home Affairs) had advised all employing organisations under its control that forwarding of applications should be the rule rather than the exception;¹ and even in the case of permanent employees, applications for outside posts should be permitted once a year. The discretion of withholding an application on the grounds of public interest should be used with judgment and not mechanically. The administrative authority should try to hold the balance even between the interests of the parent office and the desire of the individual to better his prospects.

Actual Practice Regarding Forwarding of Applications

3.8 Our enquiries revealed that this directive of Government has not been accepted in practice by all public sector undertakings. There are some undertakings, including some

1. Government of India, Ministry of Home Affairs, O.M. No. 70/10/60-Ests (A) dated May 9, 1960.

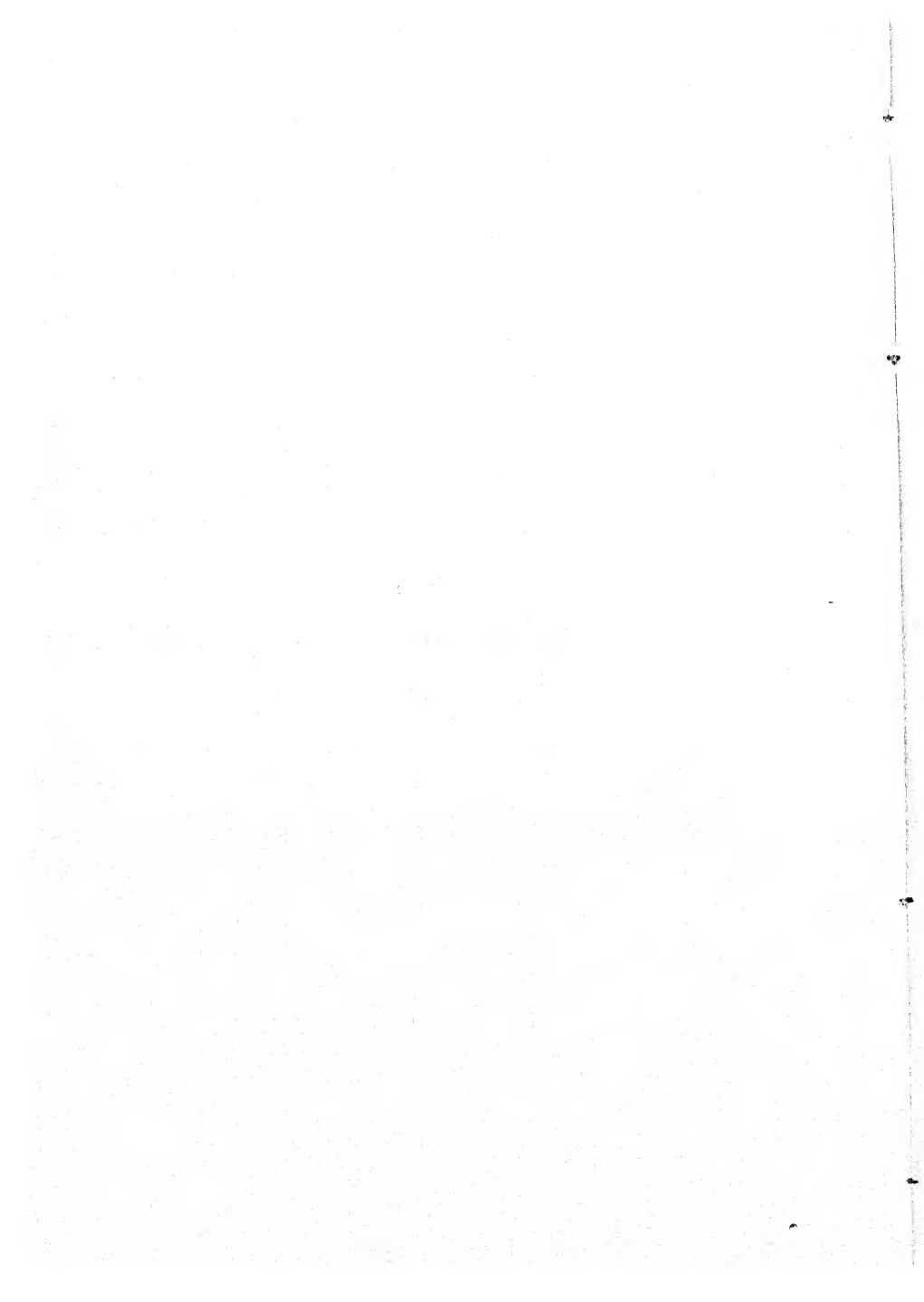
departmental ones, which have not changed their policy of withholding applications in most cases; they justify this by pointing out that already they are in difficulties about securing a sufficient number of qualified personnel and therefore cannot afford to let go the personnel that they have. Enterprises like Ordnance factories, Sindri Fertilisers, D.V.C. and Hindustan Aircraft, generally do not forward applications of their employees. In Hindustan Machine Tools, the policy is to forward applications only if the employee is blocked for long in promotions or is considered unsuitable for promotions. Otherwise he is informed about the opportunities he is likely to have and the application is withheld. In Bharat Electronics, the policy is not to forward applications of persons who are technically valuable to the concern. In Hindustan Cables, the policy is that no applications are forwarded within three years of an employee's joining the concern, and within three years from the time he obtains a promotion. Otherwise an application is forwarded not more than once a year in the case of each employee.

3.9 The policy of not forwarding applications reduces migration to some extent, though we came across a number of instances where employees had resigned and left the organisation and then joined other concerns. It is difficult to stop informal consultations when the employee as well as the prospective employer are interested parties and where the prospective job is quite substantially superior in emoluments and prospects. Discretionary powers regarding forwarding of applications only lead to various kinds of pressure being brought to bear on superior officers; blanket refusals lead to dissatisfaction due to a widespread feeling—sometimes quite unjustified—that the person could have been in a much better position if his application had been forwarded. Anyway, refusal to forward applications has not hindered those employees who really wanted to look for better jobs from doing so. All that happens is that the more straightforward employee, or one who has no contacts in other enterprises, suffers; and if the parent enterprise really insists on another public enterprise not taking up its employees who have resigned, some good employees instead of remaining

in the public sector are lost to the private sector. As indicated earlier, only in a few fields is there any understanding between public and private sector undertakings about not taking away each other's employees.

PART II

FACTORS RESPONSIBLE FOR THE
'FLIGHT'



IV. IMBALANCE BETWEEN SUPPLY AND DEMAND

Shortage of Engineers

4.1 The basic cause of the tendency towards a movement of technical personnel from one employment to another has been that the supply of technically trained and experienced personnel has not kept pace with the increase in demand for them resulting from the industrial and economic expansion in the country, especially from the beginning of the Second Plan. The general phenomenon is well known and it is unnecessary for us to dwell at greater length on this problem.¹ While efforts have been made in the last few years to reduce this imbalance between demand and supply, they have not been fully successful and demand continues to exceed supply in the case of qualified engineers. Inevitably, "when demand for personnel exceeds supply, competition sets in among prospective employers to secure the services of available men who tend to move from job to job at a rate that sometimes hampers the execution of projects".²

Shortage of Experienced Personnel

4.2 Attention may be briefly drawn to specific kinds of imbalance between demand and supply which create a situation favourable to 'flight'. While the number of fresh engineering graduates has been increasing fairly rapidly so that, during the Second Plan period as a whole, the shortage was estimated to be only of about 3000 graduates,³ the number of those with some years of operational experience behind them could not increase quickly; and many of the schemes of industrial expansion, whether they were in the nature of expansion of old units or of establishment of new units—and

1. In this connection, see, Government of India, Planning Commission—(i) Report of the Engineering Personnel Committee, 1956; (ii) Second Five Year Plan, Ch. VIII; (iii) Third Five Year Plan, Ch. XI; and also the various studies prepared by the Perspective Planning Division of the Planning Commission.

2. Report of the Engineering Personnel Committee, *op. cit.*, p. 32.

3. Third Five Year Plan, p. 172.

especially the latter—required for filling up their middle and higher management positions persons of that kind. No new plant could be established and operated properly without at least a basic complement of experienced engineers. To the extent that such persons could not be obtained through some agreement between older and newer undertakings, the latter could only secure their services through luring them away from existing concerns. This inevitably created the problem of 'flight'. Experienced personnel were required not only from the category of engineering graduates but also from among diploma-holders who provide the bulk of the middle level personnel in industry; but the shortage of raw diploma-holders as well as that of experienced ones continued to be even larger than that in the case of engineering graduates.

Shortage of Specialised Engineers

4.3 Another factor that has been important in this connection is that certain kinds of technical work had not previously developed very much in India; there were very few enterprises in such fields and therefore the number of persons who had experience of such work was naturally small. But the type of industrial expansion that has been taking place in India has created a sudden spurt in the demand for this kind of experience. Construction experience regarding plant foundations and factory buildings, engineering design, erection, operation and maintenance of various kinds of complex, semi-automatic plants,—these can be cited as examples of this kind of experience. Industrial engineering was virtually unknown in India before the Second World War period. But now, with the large and complicated combinations of capital and labour required for big industrial units, it has become an essential requirement of industrial management. There has thus been a rapid increase in the demand for persons with some years' experience of these kinds of work. Even among skilled workers, great demand has arisen for persons with skills and experience relating to, e.g., tool-room or foundry work. There is also the general increase in demand for persons who not only have operational knowledge and experience but also some experience of

handling men, especially on the shop-floor. All this has resulted in a keen demand for technical personnel with some years' operational experience; and this has helped the tendency towards 'flight'.

Regional Imbalance

4.4 A further factor contributing to the tendency towards 'flight' has been that industrial expansion and the growth in numbers of technically qualified personnel have not always been balanced regionwise. The Engineering Personnel Committee had attempted to make an estimate of the regional balance of supply and demand.⁴ In our investigation we came across cases where migration of some technical personnel had taken place because these persons, employed in other than their home regions, found that industrial expansion was now taking place in their own regions and they could easily find equally good if not better employment opportunities there. Some of them then prefer to return to their home regions. This tendency is further supported by the emphasis that many State Governments are placing on a policy of preference in employment to 'sons of the soil'. This approach is increasingly, though not always willingly, accepted by undertakings both in the private and the public sectors. Naturally therefore qualified and experienced persons coming from the region concerned are welcomed by these enterprises and therefore they have an incentive to migrate.

Effects of Indianisation

4.5 Another factor that may be mentioned in this connection is the emphasis on 'Indianisation'. In the case of foreign-based firms, the Government of India has been pressing for a reduction in the number of foreign personnel; and the percentage of such personnel is rapidly declining.⁵ While

4. *op. cit.*, para. 16.

5. The employment in salary groups below Rs. 1000 p.m. had been completely Indianised by 1955. In the case of the salary groups above Rs. 1000 p.m., the proportion of Indians in these firms had increased from 7.9% in 1947 to over 70% in 1961. The percentage share of Indians on January 1, 1961 in some of the important industries was as follows: public utility co.s.—67.7%; oil co.s.—86.5%; chemicals and allied trades—84.5%; coal—78.1%; machinery equipment, engineering, etc.—75.8% (*Fortnightly Review*, February 1, 1962, p. 5).

this would normally mean greater chances of promotion to the qualified personnel developed within the particular undertaking, to some extent it is also likely to create a demand for experienced personnel in the open market. Moreover, rapid promotions to persons in these organisations encourage persons in other organisations to try to secure jobs in them. In Public Enterprises, the approach has been to provide a fairly senior and competent understudy to every foreigner appointed for a specialised job so as to be able to dispense with the services of the foreigner as early as possible.

Planned Recruitment and Training

4.6 Because of the fact that engineering graduates as well as diploma-holders do not have much opportunity for practical operational experience while they are studying, and also because many of the new enterprises that are developing in India require knowledge and experience not very much known here up to now, many newly-developing enterprises have had to make elaborate arrangements for the training of such personnel. For adequately manning operational and lower supervisory positions, persons with some scientific training (I.Sc. or B.Sc.) have also been recruited and trained by many enterprises. Major enterprises under the Government of India like the D.V.C., Hindustan Machine Tools, Indian Telephone Industries, Hindustan Aircraft, Bharat Electronics, Sindri Fertilisers, Hindustan Steel, Heavy Engineering, Heavy Electricals and National Coal Development Corporation have made elaborate arrangements for advance recruitment and training for the large number of technical personnel required by them. Special training schools have been opened in India and, under various schemes, personnel have been sent abroad for training wherever necessary. As all the personnel required could not be recruited and trained at one time, recruitment and training has had to be arranged in several batches and it has not been unusual for some personnel required for operational work to be available for work much in advance of the actual commencement of operations. Though attempts have always been made to make some use of such personnel in the intervening period, they have not always been utilised fully enough in this period to justify •

their salaries. But this could not be helped. All these arrangements have led to a great deal of expenditure and this has been borne willingly because of the realisation that without such arrangements, it will not be possible to have the personnel in position when required. The shortage of personnel has been much reduced as a result of this kind of planned recruitment and training programmes undertaken by major public sector units under the Government of India.

Effects of Lack of Advance Planning

4.7 Some private sector units have also adopted similar policies. But there are others—both in the public and private sectors—who have not. The lack of forethought and advance planning or the reluctance to spend on recruitment and training of personnel in advance of actual requirements have marked the policies of such undertakings. Naturally therefore when they reach the stage when personnel is needed, the only course open to them is to lure away trained personnel from other units. To cover up their failure to plan for their personnel requirements in advance, they do not mind paying higher salaries; for then they expect to get personnel already trained and to some extent experienced and proved. This has been an important reason for the lack of balance between supply and demand of technical personnel and therefore for the tendency towards 'flight'.

4.8 To give one pertinent example, the D.V.C.'s Bokaro Thermal Power Station was the first large thermal unit in the country. The D.V.C. had trained a number of persons for its own requirements in the operation and maintenance of thermal plants. With some new thermal projects coming up in various States, D.V.C. found that its officers were being lured away. It was difficult to prevent this exodus because they resigned and left. The other power plant authorities being badly in need of men, did not mind D.V.C. personnel applying to them without informing the D.V.C.; some of them even came to an informal understanding with such personnel about employing them when they had resigned. The Government of India, in consultation with the D.V.C.,

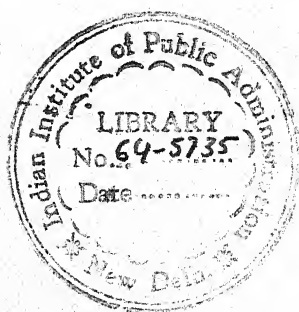
has now formulated a scheme for the training under the D.V.C. of personnel required for thermal power stations under other public authorities; it has advised all undertakings that they "should plan ahead their operational needs so that recruitment, appointment and training can be completed before the men concerned are placed in 'duty posts'. This will facilitate the making up of deficiencies in their training or experience through their being attached to 'going concerns' such as the D.V.C.".⁶ To the extent to which this advice is followed by all the units, the scarcity and the 'flight' will decline. It is obvious, however, that this has been a major factor affecting the situation up to now. Moreover, there is little that the Government has been able to do to ensure that private sector units also adopt a similar policy.

Effect of 'Grouping' of Similar Units

4.9 A major advantage that is likely to follow from the recently adopted policy of grouping similar public sector units under one organisation, as in the case of the Fertiliser Corporation or Hindustan Steel, and entrusting to such a group the task of setting up new units in that line is that the requirements of trained and experienced personnel can be met in a planned way without upsetting existing organisations. Because the Fertiliser unit at Nangal was set up independently of Sindri Fertilisers, a number of problems arose about the training and supply of experienced personnel by Sindri for the benefit of Nangal. But if the old and the new units are under a common higher management, the problem of adequately staffing the new unit at various levels can be more smoothly handled. Not only will formal and operational training of raw apprentices be organised by the older unit; in order to make available more senior and experienced personnel for the new unit, a plan for developing such personnel can also be formulated in advance and a good complement of persons made available to the new unit. The common management at the top will be able to see to it that the

6. Government of India, Ministry of Irrigation and Power, No. Bud. 14(5)/61 dated April 4, 1961, addressed to all State Governments etc. •

interests of the old as well as the new units are fairly considered. Creating supernumerary posts may not prove a very intractable problem under such conditions and therefore the supply of personnel can be planned properly to meet the expected demand.



V. SEARCH FOR SECURITY

Construction Engineers

5.1 An important reason for the tendency towards 'flight' of technical personnel engaged in various public projects on construction work is their search for security. Construction work is, by its very nature, temporary in character. Personnel engaged in such work are therefore employed on a temporary or contract basis. It is quite natural that they begin to look for alternative employment some time ahead of the actual completion of the construction work. Moreover, a significant number among those who join public sector projects for construction work seem to aim at securing a permanent job under Government. This has the attraction of a pensionable service in addition to permanency and a certain traditional status. But ordinarily the maximum age for entry into Government service is, even in the case of engineering services, normally not higher than 30. Therefore, construction personnel, when they find an opportunity, want to quit service under a project and join service under the Central or State Governments. The D.V.C. when it found that this was a major reason why many of its young engineer-employees wanted to quit and join the service of some of the State Governments, had proposed that in the case of persons serving under the D.V.C. the maximum age of entry into Government service should be raised by the number of years for which the person had served the D.V.C. But this suggestion was not accepted by Government.

Prospects of Re-employment

5.2 Leaving aside the question of entry into Government service, the possibility that service may terminate after a few years when the construction phase is over is bound to encourage construction engineers to look for other jobs. It is true that, faced with this problem, Government authorities have held out the promise that maximum efforts would be made to re-employ in other projects the personnel that would.

be released. This was done, for example, regarding the D.V.C. and the Government promised¹ assistance to all surplus personnel, and not only engineers, in obtaining alternative employment. But this type of promise may not prove adequate and it did not prevent the flight of D.V.C. engineers. Persons were not sure about the type of alternative employment that would be offered to them, the place where they would have to go, the salary that they would be offered and their seniority and status in the alternative employment. No promise was held out to them about protecting the pay and seniority that they had attained in their existing employment. They also would have felt that their bargaining power would be much weakened once, with the completion of construction, their employment was at an end.

5.3 Similar problems have been faced by other projects also in regard to their construction personnel. In the case of Hindustan Steel, as mentioned earlier, there has been a long gap between the completion of construction work at Bhilai, and the starting of further construction work either for the expansion of existing plants or for the new steel plant. Therefore, such of the construction engineers as could not be, or were not interested in being, absorbed as maintenance engineers have tended to quit as soon as they could secure an outside job. In some other projects also the experience has been that it is not possible to prevent migration when the end of the construction phase begins to come in sight. Of course, in the case of most projects in the public sector, the Third Plan envisages further construction either by way of expansion of existing plants or the setting up of new ones. But firm decisions about the new projects have not been always reached in good time to remove this uncertainty. Failing this, the project authorities have not been able to make firm offers of extension of contracts or permanent service well in advance of the completion of the construction phase. This has resulted in the demoralisation of the staff and has been an important factor responsible for the 'flight'.

1. Statement by the Minister for Irrigation and Power in the Lok Sabha, May 3, 1956.

'Temporary' Employment

5.4 One other point that may be mentioned in this connection is the tendency among many undertakings, especially departmental ones, to have a large number of posts continued on a temporary basis from year to year. This naturally leads to a feeling of uncertainty and frustration. The large number of temporary posts seems to have been an important reason for defections of technical personnel from Ordnance factories. Similarly in the case of the National Projects Construction Corporation also, it was pointed out to us that one major reason for the non-availability of qualified personnel as well as their migration is that most staff is treated as temporary. In many other new public undertakings also it seems that it takes a long time before firm decisions about permanent staff complements are taken and personnel is confirmed. While people know that most of the personnel employed is bound to be retained and confirmed in course of time, the fact that it is not actually confirmed for long does create a feeling of uncertainty. Moreover, employment on a temporary basis also involves certain handicaps. All this seems to have an adverse effect on the continuance of personnel in public undertakings.

VI. DISPARITIES IN PAY SCALES AND OTHER BENEFITS

6.1 It is generally known that disparities in pay scales constitute one of the most important factors responsible for the tendency towards 'flight'. A detailed examination of the relative pay scales of technical personnel at various levels in different undertakings would require a comprehensive study of the nature of the various jobs, the essential qualifications for the personnel required, the qualifications of personnel at the moment holding the jobs and various other related problems. The limits that we adopted at the very beginning of this study regarding its nature and scope precluded us from conducting such an examination. The resources at our disposal and also the time at our command, precluded such an enquiry. Therefore, in the following observations we confine ourselves to the broad features of the pay scales problem, in as much as it affects the availability or retention of technical personnel in public undertakings.

Basic Scales

6.2 In public enterprises, whether departmental or corporate in form, we find that the large majority of technical personnel in the supervisory categories and above are granted pay scales which are similar to the standard pay scales adopted for technical services in Government. In a few cases, the pay scales adopted by Government for the Industrial Management Pool have been used for certain categories of technical personnel. The real differences, as amongst different enterprises in the public sector, quite obviously arise not because of the use of different pay scales as such but because of the adoption of the same scales for different levels of personnel.

Apprentice Stipends

6.3 There is however one case where the actual remuneration varies; and that is about the stipends given to different

kinds of apprentices during their training period. As mentioned earlier, the practice of recruiting apprentice-trainees from amongst engineering graduates, science graduates and persons educated up to various other lower levels is increasingly in use in many undertakings, public as well as private. But the stipends offered by different enterprises vary considerably. For example, fresh engineering graduates get a stipend which varies from Rs. 150 p.m. in some Bangalore-located public enterprises to Rs. 250 p.m. in Hindustan Steel and Heavy Engineering Corporation. The further increases during the training period and the scale of the post in which, on successful completion of training which usually lasts about two years, the trainees are absorbed also vary significantly. In the second year of training, they get a rise of Rs. 20 in some enterprises to Rs. 50 in some others. The scale of the first posting similarly varies from Rs. 250-460 in some cases to Rs. 350-850 in some others. The situation is even more curious when one considers private undertakings. In the case of two concerns managed by the same business group, we found that in one, the apprenticeship stipend is Rs. 219 p.m. (inclusive of D.A.) while in the other it is Rs. 300 p.m. in the first year and Rs. 350 in the second year. The scale on first postings is Rs. 250-500 in the first concern and Rs. 505-810 in the other concern. In some important foreign-controlled firms, the pay during training is about Rs. 500 p.m. and the initial pay on first posting about Rs. 700 p.m. in the case of persons taken in what is sometimes called 'covenanted' service. A further point to be noted here is that as the demand for engineering graduates has increased, concerns both in the public and the private sectors have had to increase the stipends that they offer in order to attract the right kind of persons in the numbers required. Concerns which have not revised their stipends upwards have had to face difficulties in their recruitment of apprentices, especially of engineering graduates. One of the Bangalore-located concerns, for example, has had to face difficulties in attracting graduate apprentices on its current stipend. In 1961, in response to its advertisement, 186 applications were received, 85 of them turned up for interview and test, and out of the 23 that were selected only

three joined. In the case of another Bangalore-located project the response to their apprenticeship programme was originally poor—when the stipend was Rs. 150 p.m.; then the stipend was substantially increased so as to attract more apprentices.

Old and New Units—Fertilisers

6.4 As a general rule, we find that pay scales adopted for similar categories are lower in the older enterprises as compared to the newer ones. This is generally true of public undertakings, and more particularly of departmental ones. This is because their salary plans tend to be rigid and are not adjusted every few years to meet changing conditions as those in private undertakings are. Naturally this leads to a tendency for personnel to migrate towards new undertakings. One significant example is provided by the pay scales in the three fertiliser units at Sindri (before its integration into the Fertiliser Corporation of India), Nangal and Rourkela. Sindri was established over ten years ago and was one of the first major public sector undertakings to be established in the country. The scales of pay were then established broadly on the basis of the scales prevalent in technical services under Government, as in Ordnance factories, and the scales were probably not unattractive at that time. But then they remained at those levels up to 1960, almost unchanged. When the unit at Nangal was being established some years after Sindri, the management felt that if they were to attract good personnel they should offer scales somewhat superior to those prevalent at Sindri. When they did this, the Sindri management got annoyed¹ because their employees began to clamour for a salary rise which for various reasons they did not find it possible to grant. Their employees then began to feel dissatisfied and tried when they could to shift to Nangal. With the establishment of the Fertiliser Corporation of India, in which the Sindri

1. The annoyance of the management at Sindri is indicated by the fact that it first refused to train Nangal personnel at Sindri; and a compromise was arrived at under which, for the personnel that was being sent to Sindri for training, the higher scales were kept in abeyance. A part of this history has been repeated in the case of the F.C.I. and the Rourkela Fertiliser project.

and Nangal units were merged together with others, a uniform salary plan has been adopted. But now a new problem has arisen as a result of the fertiliser project that is being established at Rourkela under the control of Hindustan Steel. The scales of pay for technical personnel in this project are significantly higher than those prevalent in the Fertiliser Corporation; and the Corporation people find this specially disturbing as they are providing technical assistance and collaboration in the design, construction as well as in training personnel for the project. The Rourkela Fertiliser project scales are related to the scales generally adopted by Hindustan Steel for the technical personnel in all the public sector steel plants; and these latter have had to be mainly based on the scales prevalent in the older steel plants in the private sector like the TISCO and the IISCO. The Hindustan Steel management feels that it cannot adopt different scales for similar kinds of employees just because some are working on the steel side and some on the fertiliser side. But the net result is that there is great pressure from the employees of the Fertiliser Corporation to be permitted to try for jobs at Rourkela.

Old and New Units—Other Cases

6.5 Comparisons between other old and new undertakings in the public sector indicate similar problems. Ordnance Factories,² one of the oldest groups of industrial units in the public sector, had till recently very few posts carrying pay scales exceeding Rs. 1600. Posts carrying relatively equal responsibility and requiring similar qualifications and experience were put at substantially higher scales in the new public undertakings. This has led to considerable exodus of qualified and experienced personnel from Ordnance factories which could not be stopped by any coercive measures. The Government has therefore recently revised upwards the scales of pay in Ordnance factories and sanctioned a number of posts in higher pay scales. Similarly, the

2. See : Report of the Commission of Enquiry on Emoluments and Conditions of Service of Central Government Employees, 1957-59, (hereafter referred to as the Second Pay Commission), pp. 165-66, Tables II & III.

Damodar Valley Corporation's pay scales are found to be lower than those in the newer undertakings; for example, an engineering graduate has to start in the D.V.C. as an Assistant Engineer on Rs. 200 p.m. In many new enterprises as well as in Government engineering services, the starting salary of a first class graduate in engineering is much higher. The D.V.C. has therefore to accept less capable persons and even these tend to quit as soon as they can. But due to a number of reasons the D.V.C. has not found it possible to revise its scales. The tendency of its personnel to migrate cannot therefore be checked.

Special Factors Limiting Pay Scales—Chittaranjan

6.6 In the case of some public undertakings, certain circumstances, somewhat adventitious in character, limit the salary scales prescribed. For example, Chittaranjan being treated as an integral unit of the Railway Organisation, the scales of pay there have to be the same as on the Railways generally, the main difference being that when an officer from other Railway administrations is selected for posting at Chittaranjan he is given three advance increments. Certain posts at Chittaranjan carry a special pay in addition to the pay prescribed for that post all over the Railway system; e.g., a foreman at Chittaranjan gets Rs. 150 p.m. in addition to his grade pay. But the type of work done at Chittaranjan is not done in any other railway workshops; therefore the personnel there either have to be better skilled and qualified when joining or they acquire better skills and experience as they work there and thus significantly improve their market value. The technical head at Chittaranjan is the Chief Mechanical Engineer in the normal railway grade of Rs. 1800-2250; he is assisted by three Deputies in the grade of Rs. 1300-1600. But persons who prove successful at Chittaranjan in these important jobs have a much greater market value; such jobs are much better paid both in corporate public undertakings and in private undertakings. The management is hard put to maintain their good personnel who are always getting lucrative offers from other concerns and who find that persons doing similar work elsewhere even in the public sector

are able to draw much higher pay. As compared to Hindustan Steel, for example, which has adopted intermediate scales like Rs. 1000-1400, and Rs. 800-1200, the grade next to Rs. 1300-1600 in Chittaranjan is Rs. 600-1150³ and posts like Works Manager, Production Engineer, etc. are all put on this scale. Because of the tie-up with line railways, a flexible policy regarding scales to suit the requirements of a production organisation has not been adopted at Chittaranjan. This affects the potential retention of personnel who get production experience as well as the availability of good personnel through direct recruitment when required. For example, a foreman had to be recruited for the foundry which is an important part of the development programme; but the scale offered was the same as that for foremen generally—Rs. 370-475. The demand for good persons with foundry experience is so great that private firms offer much higher salaries for such jobs. Even in Hindustan Steel, the scale for General Foreman (Foundry) is Rs. 1000-1400 and that for Foreman (Foundry) is Rs. 600-1000. Obviously it was not found possible to recruit a first-rate man for this work on the scale offered. Similarly an advertisement for a Senior Draughtsman on Rs. 260-350, for which post an engineering graduate or diploma-holder with five years' experience was required, did not result in any suitable applications. The qualifications prescribed were then reduced because it is difficult to change the scales except on an all-India level. Two of the recent cases of defection from Chittaranjan have been in the category of Production Engineers who, as mentioned earlier, are in the scale of Rs. 600-1150. Production or industrial engineers, especially those with experience of working in a large modern undertaking, are so scarce that other concerns are ready to pay more for obtaining such persons. Hindustan Steel, for example, has posts in the scale of Rs. 1600-2000, Rs. 1300-1600 and Rs. 1000-1400 in addition to Rs. 600-1000 and Rs. 350-850 for this category. The lack of such posts in Chittaranjan has made it difficult for the management to

3. Scale prevalent before the implementation of the Second Pay Commission's recommendations.

retain experienced production engineers. One of those who left was drawing Rs. 1060 p.m. at the time of leaving; his remuneration in the private firm that he has joined is said to be more than double of this. But even the C.M.E. gets no more than Rs. 1800-2250 at Chittaranjan.

Indian Telephone Industries

6.7 Though the Indian Telephone Industries has been set up as a Government company, its top-officials have throughout its history been officers belonging to the P. & T. Department sent on deputation. The Managing Director and his principal technical assistants generally belong to the Telegraph Engineering Service and, when working at I.T.I., receive their grade pay plus a deputation allowance of 20%. This seems to have provided some sort of a ceiling on the salary scales prescribed for all the other technical officers in the I.T.I. While the scales of pay prescribed for all personnel up to junior supervisory levels are similar to those prevailing in Hindustan Aircraft and Bharat Electronics, also situated in Bangalore, such is not the case regarding higher level posts. This has led to some difficulty in retaining experienced personnel, though the policy of not forwarding applications has restrained migration to some extent. In the last few years, from five to seven experienced officers have left the company's service every year and the number, it is thought, would be much greater if applications had been forwarded and if there was no strict understanding among the public undertakings in Bangalore not to employ personnel resigning from any of these units without the consent of the original employer. Even so, there have been cases of persons from I.T.I. first resigning to go to a private concern and then going to another public sector unit in Bangalore on a still higher scale within a short time. There have also been cases of persons resigning from here and joining other public enterprises like Heavy Electricals—and sometimes they have been able to obtain an increase of even 100% in their emoluments as a result of the change. Private enterprise engineering industry is also rapidly expanding in this region and the officers resigning from I.T.I. and joining them are able to secure a similar increase in emoluments. It

was felt up to now that pay scales could be lower in Bangalore as compared to other parts of the country; there are a number of qualified people coming from this locality and because of a number of reasons, they prefer to stay in Bangalore even if the salary is lower. But now that private enterprise industries are expanding, and increasing demand for qualified and experienced personnel is leading them to offer higher scales, it is becoming more and more difficult for public sector units in Bangalore to maintain their present scales without a constant threat of loss of good personnel. Moreover, more of the young engineers are getting to be mobility-minded and do not mind going to other regions if they can thus secure a substantial increase in emoluments. A methods engineer from I.T.I., in the scale of Rs. 600-1000, recently left to join a private firm on a starting salary of about Rs. 1300; moreover, he took along with him a number of his subordinates and tool-makers.

6.8 The lower pay scales in I.T.I. also affect recruitment and a number of posts remain vacant for long periods because of non-availability of suitable recruits. Mechanical engineers of the required quality do not become available; so also draughtsmen, tracers, etc. The difficulty about securing good graduates in telecommunications engineering the I.T.I. shares with the P. & T. Department generally. The difficulty seems to be that, with the restricted employment market for them, and the poor pay scales and promotion opportunities, good students do not go in for telecommunications engineering. The I.T.I. has attempted to meet this difficulty by recruiting science graduates and training them. This has eased the situation to some extent. But probably the long-term solution to the problem would lie in following the policy pursued by Hindustan Aircraft regarding aeronautical engineers. Because there is no demand for aeronautical engineers from any other units in the country, it was observed that good students do not join the aeronautics course. So the H.A.L. has provided stipendiary scholarships at the Indian Institute of Science for good students doing the aeronautics course; employment to them in H.A.L. is virtually guaranteed if they successfully complete the course; and

the career prospects for them have been recently made sufficiently good to ensure that good candidates are attracted to this line.

P. & T. Workshops

6.9 Another example of the scales of pay of a production organisation being related to a large service organisation is that of the P. & T. Workshops. These workshops are only a small part of the total P. & T. organisation and the top staff of the workshops almost invariably belong to a general P. & T. service like the Telegraph Engineering Service. The pay scales of other personnel in the workshops naturally tend to be determined by the general scales applicable in the P. & T. Department. But the type of work that has to be done being different, the type of personnel required is also different and this leads to difficulties regarding recruiting and retaining good personnel. Direct recruitment is made at the levels of Assistant Foremen (Class III—Rs. 210-380) and Assistant Engineers (Class II—Rs. 350-900). The response to advertisements is poor. For example, in December 1959, 21 posts of Assistant Foremen were advertised; but only 19 applications were received. Therefore an advertisement was again issued in May 1960; 31 candidates applied and on the basis of a test, it was found that only seven of these were qualified for appointment. The recruitment of Assistant Engineers, which has to be done through the U.P.S.C., has similarly been found to be difficult. In November 1958, a requisition was placed on the U.P.S.C. for the recruitment of nine Assistant Engineers; in October 1959, the U.P.S.C. recommended nine candidates. But of these only two joined, one in December 1959 and one in June 1960. Both resigned within a few months. Out of 34 Assistant Foremen recruited in 1954-55, 16 had resigned by 1960. As against 53 posts of Assistant Foremen that have been sanctioned, only 17 persons were in position;⁴ similarly against 14 posts of Foremen, only eight were in position and against 48 posts of Assistant Engineers, only 43 were in position. The fact that the service is pensionable and the policy of not

4. Position on May 22, 1961.

forwarding any applications have restrained migration of more personnel. But there is a general feeling of dissatisfaction and demoralisation among the staff, some of whom feel that joining the service has been the major mistake of their life. Moreover, as indicated above, recruiting competent outsiders to replace those who retire or resign is becoming more and more difficult and the only persons available for appointments are in many cases less competent employees from inside the unit who were not promoted earlier because of their lack of competence and qualifications.

Use of Promotees Without Formal Qualifications

6.10 Despite comparatively low pay scales, personnel may not be able to leave an organisation if the technical competence attained by them is likely to be of use only in that organisation or if, as a result of having no formal technical qualifications, their services are not much in demand outside their employing unit. This may happen when an enterprise pursues a policy of training a large number of persons who do not possess any formal technical qualifications in the type of technical work that is required to be done in that enterprise. Hindustan Aircraft has been pursuing a policy of training persons with few formal qualifications and then gradually promoting them to fairly high positions—senior supervisory and even sometimes middle management levels. This has been an important factor in reducing the magnitude of the problem of migration which it might have faced. Of course there are limits to the extent to which practical training and experience can equip a person for jobs at higher levels. At certain levels and for certain kinds of jobs, especially in industries where complex and highly refined techniques are increasingly required to be introduced, it may be increasingly essential to have persons with certain minimum formal qualifications. Both in Hindustan Aircraft and Air-India International, where also this system has been used for manning quite a large number of technical positions, some of the senior officials expressed the view that more attention will have to be given in the future to recruiting and developing on a large scale persons with formal education in engineering because only such persons are likely

to have the potentiality of handling increasingly complex technological tasks. To the extent that this was to be done, the pay scales and prospects will have to be attractive enough to draw the best intellect and talent to these industries.

Influence of Government Pay Scales

6.11 Even in enterprises which are not departmental in form, or where the pay scales are not kept unduly low because of some peculiar circumstances as mentioned above, salary scales in Government services largely provide the pattern for their salary scales. The fact that in most cases their top-management is recruited from among Government servants, especially that the finance and accounts department is almost in all cases headed by persons from Government finance or accounts departments, and the representation on the Board of the Ministry of Finance have both contributed to this result. Further, the appointments at the top are made by Government and the conditions of service are also prescribed by Government. The Government's policy has been generally to limit the salary of the top official of a public enterprise to about Rs. 2750—the salary of an Additional Secretary (non-I.C.S.) in the Government of India. This has provided the ceiling for virtually all salaries in the public sector enterprises. There are exceptions, not only in respect of foreign personnel, but also in respect of some top level personnel employed in, e.g., Hindustan Steel, where salaries equal to those drawn by these persons under their previous private sector employer have been given to them. But these are special cases, supposed to be temporary in character. Largely, the pay scales in enterprises are expected to be similar to those in Government services.

6.12 To the extent that the pay scales in public sector corporate undertakings are on par with those in Government services, the real attraction of service under the former is bound to be less than that under the latter; because service under corporate undertakings does not carry many of the advantages of Government service. The service is not pensionable, and in most enterprises no provision even for payment of gratuity has yet been made. Not only pay scales but

even rates of travelling and such other allowances in corporate undertakings are similar to those in Government; but in Government hostels, rest-houses, etc., officials of undertakings do not enjoy the concessional rates of Government servants. Pensionable service, as indicated above, has to some extent helped units like Chittaranjan or the Ordnance factories to keep their personnel in spite of lower pay scales. But corporate undertakings, providing neither pension nor gratuity, are in a more vulnerable position if their pay scales are not attractive enough.

Pay Scales in Private Concerns

6.13 The difficulties that are and will increasingly be faced by public sector undertakings regarding recruiting and retaining the best technical talent in the country become more apparent when we take note of the pay scales provided in the better class of private sector undertakings. The best salaries in the private sector are paid by enterprises which are mainly foreign controlled. Concerns like the I.C.I., Burmah-Shell, Stanvac and Hindustan Lever base their salaries for what may be called 'officer' staff or management staff (which include the kind of technical officers with whose problems we are dealing in this study) on salaries broadly similar to those that they pay in their concerns abroad. They treat the personnel in their concerns in different countries as interchangeable and therefore have broadly a common salary pattern. Foreign personnel and Indian personnel, job for job, are paid the same salary except that foreign-based personnel also, in addition, obtain a foreign allowance. Naturally therefore they pay much more, job for job, than public undertakings. The starting salary of a first class engineer, if he is taken in the management cadre, is about Rs. 600-700 and the increments, especially in the early period, are large, between 5-10% of the basic salary. Even in a large Indian private concern like TISCO, a graduate apprentice on absorption gets a starting salary of over Rs. 700 (inclusive of D.A.). On the other hand, even in the better-paying public sector undertakings, as we have indicated, the starting salary of a graduate engineer cannot exceed Rs. 500 (inclusive of all allowances etc.). Moreover, in most

technical services, in the early stages of a young man's career, he has a scale which gives him only biennial increments and even these are not very large—Rs. 30 or Rs. 40. The differences get to be larger at the higher levels. As mentioned earlier, the General Manager of a large private engineering concern at present draws about Rs. 4500 p.m. If he had continued as a Railway Engineer, which he was before he resigned, at Chittaranjan or elsewhere, he would have only been a Chief Mechanical Engineer in the scale of Rs. 1800-2250.

Periodical Adjustment of Pay Scales

6.14 A further point that needs to be noted in this connection is that the better class of private undertakings follow a very flexible policy in regard to their salary-scales. They go on studying the trends in the employment market, periodically conduct area-surveys and revise their salary-structure every few years if necessary in order to see that they are able to attract and retain the best available talent. In the public sector undertakings, on the other hand, salary-scales tend to be rigid. While an enterprise that is being newly set up may be able to devise salary-scales that are suited to the then current conditions, adjusting the normal Government scales to various jobs in a manner which proves attractive, upward revision of scales or changes in the horizontal or vertical structure of scales for different jobs become very difficult to accomplish later on. A general upward change is possible for all only when the Government accepts such a change as the result of an examination by a Pay Commission; and even then upward change may be difficult to make in the case of higher paid jobs even though managements may be finding it difficult to attract and retain the best talent on the existing terms.

Other Monetary Benefits

6.15 It is true that Government service being pensionable provides some compensation for lower pay. But service under corporate public enterprises is not pensionable. Moreover, if the difference in salary is significantly large, the prospect of receiving a pension after retirement does not

prove attractive. We have already had cases of persons resigning from technical services like Railways and Ordnance factories to join private concerns; at a younger age, a large increase in salary may prove much more attractive than the prospect of receiving a pension on retirement. Further, accumulation of a provident fund, with the employer contributing at the rate of about 8% of a much higher salary, can more than compensate for the lack of pension.⁵ Some concerns, in addition, make provision for pensionary benefits also for their 'covenanted' staff.

6.16 Moreover, in many private enterprises, a profit bonus is paid to all including the highest paid employees. A bonus equal to three or four months' salary can make a substantial addition to income and this rate of bonus payment is not unusual. In public corporate undertakings, the *ad hoc* bonus that is sometimes paid is much smaller—1½ months' salary is the normal rate—and it is confined to persons whose pay does not exceed Rs. 500 p.m.

Welfare Facilities

6.17 It is sometimes said that other benefits like facilities for housing, education, health, recreation, etc. are provided much more in public than in private undertakings. This is partly so; in new enterprises like Chittaranjan, Sindri and the steel plants, these facilities have been generously provided. But we should not overlook the fact that the real additional benefit in this respect that the public sector enterprises provide is enjoyed by the workers and low-paid staff generally. Large private undertakings provide many of these facilities, in one way or another, to their higher grade employees in a generous way even if they may not always be so generous to their lower paid staff.

Security of Service

6.18 The security that goes with service in the public sector, whether in the Civil Service or in public enterprises, can be said to compensate to some extent for the lower salaries.

It needs, however, to be said that in a planned and rapidly growing economy, it is not likely that any enterprise will have to lay off personnel on a significant scale. Insecurity arising out of the varying fortunes of an enterprise will not therefore be much of a risk in the case of large private undertakings. It would still be true that because of the public character of Government undertakings, a person can probably feel more secure about his service prospects there than he would feel in a private concern. But security of this kind may be coveted at a high price only by persons who are uncertain about their capacity for work and accomplishment. A talented and technically competent person would feel confident that any employer, in pure self-interest, is bound to treat him fairly.

Lower Pay in Public Sector Justified ?

6.19 In justification of lower pays at higher levels in Government it has been said, "Public Service, particularly at the higher levels, has its own rewards. There is the honour and the prestige... and there are opportunities for full and continuous use of talent, and for the exercise of influence in the shaping of public policies and programmes... Those who enter it are servants of the public, not of individuals."⁶ This may be true of Government Service proper, but can hardly be said to be true in any special sense of service under industrial enterprises in the public sector. A person working in Hindustan Steel is not likely to feel that he is doing something very different from and superior to what his counterpart in Tata Steel is doing. It is possible of course that for certain kinds of experience and work, public sector enterprises may provide better opportunities and, to that extent, people may prefer to work in them rather than elsewhere. This point we shall further discuss later.

6.20 Such data as we have been able to collect indicate that pay disparities are very large as between public sector undertakings and large modern private sector undertakings. The result is that there is a great incentive for highly qualified

personnel either to join such private sector undertakings in the first place, or to migrate to them when an opportunity arises. While there are instances of persons from private sector undertakings migrating to public sector undertakings, especially when new large public sector undertakings are being established, public sector undertakings seem to be facing a real potential threat of losing their best personnel to private sector undertakings. Hindustan Antibiotics, for example, is finding that a number of its trained operatives are leaving for much better paid jobs in private sector concerns, some of them foreign controlled, that are being established in the country.

Similar Designations—Apparent and Real Pay Disparities

6.21 The disparities that sometimes cause a feeling of dissatisfaction are found to be more apparent than real and arise due to the lack of standardisation regarding designations. Personnel in different undertakings carrying the same designation may in reality be doing work which is vastly different in terms of qualifications, capacity and experience required and the responsibility involved. For example, the term 'foreman' is used for supervisory jobs at very different levels in different undertakings; the scales vary from Rs. 140-200 in the Mysore Iron and Steel Works to Rs. 600-1000 in Hindustan Aircraft and Hindustan Steel. Similarly the scales for posts designated as 'General Foreman' vary from Rs. 320-400 in Neiveli Lignite Corporation to Rs. 1000-1400 in Hindustan Steel. Coming to higher levels, the scales of posts designated as Works Managers vary from Rs. 600-1150 in the Railways to Rs. 1800-2000 in Hindustan Antibiotics and Rs. 2000-2500 in Heavy Electricals. Posts of Design Engineers carry a scale of Rs. 600-1000 in Hindustan Steel and Rs. 1000-1400 in National Coal Development Corporation. A number of such examples can be given. In such cases, where the disparity in pay scales is large, it is obvious that the similarity of designations cannot be taken to indicate a disparity in remuneration for similar work.⁷ It does however tend to

7. In most such cases, the qualifications and experience prescribed for the posts are quite different and this indicates that the common designation is really misleading. For example, for the post of 'General Foreman'

create confusion in the minds of employees and leads to a feeling of dissatisfaction which is not really justified.

6.22 There are cases, however, where the difference in scales of pay is not so large as to indicate that similar designations are misleading but large enough to make the employees feel dissatisfied and eager to apply for posts with similar designation in other undertakings. For example, the scale of 'Metalurgists' is Rs. 420-950 in Heavy Electricals, Rs. 600-1000 in Hindustan Aircraft and Hindustan Steel, and Rs. 700-1300 in Chittaranjan Locomotive Works. The scale for Junior Industrial Engineers is Rs. 350-850 in the Fertiliser Corporation of India and Rs. 400-660 in Bharat Electronics. The scale for Assistant Works Manager is Rs. 350-850 in Railways, Rs. 400-950 in National Instruments and Hindustan Cables, Rs. 500-800 in N.C.D.C. and Rs. 600-1000 in Hindustan Cables.⁸ In such cases, it is not always certain that the differences in scales of remuneration are necessarily due to any significant differences in the nature of work involved and the type of person required for the post. It seems that in many such cases the differences in scales are adventitious in character. Such differences, like the other differences mentioned above, give rise to dissatisfaction and to attempts to apply to the undertakings where the scales are better. This can therefore be an important factor in encouraging migration of personnel. Moreover, in this kind of situation, the qualifications and experience required being similar, it is difficult to resist the attempts at migration.

at Neiveli even a diploma in engineering is not essential; while for the 'General Foreman' at Hindustan Steel, a degree in engineering or its equivalent is an essential qualification.

8. The qualifications prescribed for Assistant Works Manager are: N.C.D.C.—diploma or degree in engineering and eight years' experience in workshop practice including steel fabrication and/or holding responsible supervisory post for five years. Hindustan Cables—degree in engineering and experience in general engineering workshop practice; at least five years' practical experience in the field.

VII. OPPORTUNITIES FOR ADVANCEMENT

7.1 Adequate opportunities for advancement are very important in determining the capacity of an organisation to retain its best talent. Advancement or promotion not only ensures that the talented employee gets positions carrying better remuneration but it also provides him psychological satisfaction due to his capacity being recognised and his being provided with greater responsibility and more challenging work. If an organisation cannot provide a proper ladder of advancement to its employees, the more dynamic and talented of its personnel are bound to feel dissatisfied and they would begin to look for outside openings.

Difference in Old and New Undertakings

7.2 The opportunities for advancement in any organisation depend on a number of factors. An old organisation is likely to provide less opportunities than a new one, unless it is expanding very rapidly. An organisation that is being newly set up will not find it possible to obtain from the open market enough persons with long experience for its higher posts and therefore, in the early years of its life, will have to promote its own younger employees comparatively rapidly. Thus we find that advancement is much quicker at present in new public undertakings like Hindustan Steel as compared to old and well established undertakings like the Railways, Ordnance factories and the Posts and Telegraphs. Even though these latter kind of public undertakings are also expanding, their rate of expansion is not so high as to provide rapid advancement to their employees similar to that available in the new undertakings.

7.3 In the railways, we find that movement from the Junior Class I scale of Rs. 350-850 to the Senior scale of Rs. 600-1150¹ takes approximately five years. But the movement from the latter scale to the Junior Administrative Grade of

1. Pre-Second Pay Commission scales.

Rs. 1300-1800 is much more difficult. At Chittaranjan, graduate engineers with 15 to 20 years of service are to be found in this grade. To reach the Senior Administrative Grade of Rs. 1800-2250 seems to require a minimum of 22 years' service. The situation on the Railways, it may be mentioned, regarding the advancement of engineering staff has been eased to some extent through the creation of ex-cadre posts such as Divisional Superintendents which are open to various kinds of gazetted officers including engineers. As compared to this, in Hindustan Steel, an engineer with five years' experience can get into the scale of Rs. 600-1000, one with seven years' experience can get into the scale of Rs. 800-1200 or, if he is specially capable, into the scale of Rs. 1000-1400. For posts in the scale of Rs. 1300-1600, a minimum of only 12 years' experience is prescribed. The National Coal Development Corporation prescribes nine years as minimum experience for a mechanical engineer to be appointed to a post carrying the scale of Rs. 1000-1400. Thus engineering personnel find that advancement opportunities are much better in the new than in the old public undertakings.

7.4 We also find that as an enterprise gets somewhat stabilised, even though it may continue to expand, the advancement gets to be slower. Thus at Hindustan Machine Tools, because of expansion and also because of the replacement of foreign personnel, advancement has been comparatively rapid and therefore migration has not become much of a problem as yet. But the management is not certain that the rate of advancement in the future will be as high as it has been up to now. At Sindri, a major cause of dissatisfaction among technical personnel is that the advancement opportunities are much slower now as compared to the situation seven or eight years earlier. In the D.V.C., not only were the advancement opportunities greater in the early phases of its career, but merit promotions also seem to have been quite common so that some hand-picked and talented persons could advance rapidly. But now, with stabilisation, there are much fewer opportunities of advancement; moreover, there is a seniority list which, by and large, indicates to the

employee his chances of promotion. Therefore, a number of engineering employees, who find that they have little chance of advancement for some years, tend to migrate to other employment.

Difference in Opportunities in Different Departments

7.5 Opportunities for advancement not only vary from enterprise to enterprise; they may also vary from section to section within an enterprise. For example, maintenance engineers may find that the advancement opportunities for them are much less than for production line engineers in the organisation. At Sindri, for example, the electrical and mechanical engineers feel that their advancement opportunities are very much inferior to those of chemical engineers. In N.C.D.C., all other categories of engineers feel that their opportunities for advancement are less than those of mining engineers. In the Hindustan Steel, maintenance engineers feel that their opportunities are less than those of engineers in production shops; while the latter feel that advancement is much more rapid in new staff units like designs, industrial engineering, etc. Where possible, therefore, people want to transfer either from one section of the enterprise to another, where they think the advancement opportunity is greater, or they try to transfer to another undertaking where instead of being on the sidelines, so to say, they could be in the main part of the organisation.

7.6 Similarly, when the undertaking is small, or a particular section in it is small, and there is no possibility of expansion, the advancement opportunities for the employees there are bound to be restricted. Of the three units at present under the Fertiliser Corporation, only at Sindri there is a power house. There is no likelihood of the other units coming to have power houses. Naturally therefore the power house engineers find that expansion of the units under the Corporation is not likely to improve their opportunities of advancement and therefore prefer to find opportunities in other power projects. On the other hand, it seems that qualified coal mining engineers are quite willing to migrate from small private collieries to the National Coal Development

Corporation because, the latter being a large organisation, the advancement prospects there are much better than in the former.

7.7 As indicated by the discussion above, advancement opportunities vary from enterprise to enterprise and therefore employees from enterprises where such opportunities are less try to move to other, more favourably situated, enterprises. The normal tendency of the enterprise authorities is to prevent such movement. This is especially so in the case of employees who are found to be good. They might be given some promotions and then, naturally, their applications are not forwarded. (Sometimes, of course, even if a promotion cannot be given, their applications are not forwarded.) Other employees, considered not to be so good, may prove to be luckier in the sense that if their applications are forwarded and they are able to move to a rapidly expanding enterprise, they may find that they are able to rise faster than their colleagues whose applications were not forwarded because they were found to be more talented and therefore more valuable to the original enterprise. We have already cited the example of such a case at Sindri.

Seniority and Promotion

7.8 In public undertakings, there is a much greater emphasis on seniority in determining promotions than on merit. This is a subject which has been discussed for long, and which no doubt will continue to be always discussed. We shall in this part of our study confine ourselves to discussing the effect of this policy on the migration of personnel. The more talented, dynamic and hard-working among the public undertakings, personnel find that they would have to wait for their turn for obtaining promotions. Naturally therefore if they find that good openings are available in new organisations where they could obtain higher positions more quickly, they tend to quit. The management of a public undertaking, if it finds that the seniormost man in the next grade is not quite suitable for a higher post which has to be filled, may consider the persons one or two places below, but it is generally reluctant to go much further down. The

justification which is usually given—and it is no doubt an important one—is that promoting a junior man, however talented he may be, over the heads of a number of others is likely to create a great deal of dissatisfaction and demoralisation in the organisation. An outsider, maybe with the same qualifications, experience and talents as the junior insider, is therefore preferred. Naturally therefore the talented insider wants to try his luck outside either in a public undertaking, if he is permitted to apply, or else in a private undertaking.

Situation in the Private Sector

7.9 In private undertakings of the better kind, advancement is more rapid for qualified personnel in the early stages of their career. Annual increments vary according to the appraisal of performance and for those who are found to be more talented, very rapid advancement is possible. It is not unusual these days for a brilliant engineer to earn Rs. 1000-1400 at the age of 27-28, Rs. 1500-2000 at the age of 32-33 and Rs. 2000-2500 at the age of 37-38 in some of these firms. It is true that advancement based on appraisal of merit can lead to abuses and some degree of favouritism or nepotism can creep in; but largely it would be true to say that while a few persons may get such promotions on considerations other than merit, persons with merit almost invariably secure them. This is an important reason why young talented engineers want to join such private firms in the first instance or, if they are already in public undertakings, they try to shift to such firms.

Public Sector Employees Handicapped

7.10 As a result of rapid expansion of the industrial sector, there is shortage in the country of persons qualified and experienced to hold senior technical posts. Therefore qualifications that are prescribed, especially regarding experience, have to be reduced and somewhat less qualified, less experienced, persons have to be put in senior positions which they would not have normally secured. This is a problem facing both public and private sector undertakings. But

while in the better firms in the private sector, there is a realisation of the implications of the present shortage of qualified people, in the public sector one sometimes finds a curious resistance to rapid promotions. The qualifications laid down for the posts are generally found to be too high in relation to the availability of personnel. Because no one inside the organisation satisfies the criteria laid down, the post is advertised. When it is seen that persons with the required qualifications are not available, others with less qualifications have to be considered. In some public enterprises, we heard the complaint that in such instances, relaxations are more common for outsiders than for insiders. Sometimes, when no candidate satisfies the qualifications laid down, previous pay is accepted as an important indicator for selection. In this, persons who are employed in private undertakings, age for age, qualifications for qualifications, score because they are generally paid better than those employed in public undertakings. Therefore the insider, or a candidate from another public undertaking, has less chance of being selected than a person, similarly qualified and experienced, but coming from a private undertaking. No wonder that some technical personnel resort to the method of getting employment in a private undertaking as an intermediate stage of moving from one public undertaking to another.² This method not only helps them to get over the problem about applications not being forwarded and the understanding that public sector undertakings are expected to observe about pinching each other's employees; it also assists them in getting higher positions in the public sector undertakings that they wish to join than if they had started in employment there or if they had straightaway shifted there from another public sector undertaking. Some railway engineers mentioned to us cases of persons who were not selected in the U.P.S.C.

2. Of course even this may not work if it is in the same enterprise that they try to obtain a higher job. In one public undertaking, an ex-employee who had resigned and obtained a better job in a private firm applied for a higher post which was advertised. He was found to be the best available candidate; but still he was not appointed when it was found that this would place him in a post two stages above the post he was holding when he left a year or so before.

examination for engineering services and therefore joined private firms but were now being taken up in new public undertakings on salaries much higher than what those selected by the U.P.S.C. are now getting or would get if they were allowed to go to other public sector undertakings.

Possibility of 'Jumps' Through Migration

7.11 One result of the general shortage of qualified and experienced technical personnel is that many openings in middle management positions are coming up all the time and people find it profitable to migrate from undertaking to undertaking because they can obtain 'jumps' in this process which they cannot through normal advancement in their own organisation. This especially applies to the public sector undertakings because of the reluctance of managements, as mentioned earlier, to realise the consequences of the general shortage. Moreover, even a management which is flexible in its approach to rapid advancement, tends to confine advancement of an employee, however talented, to once in two years or so, under the most favourable circumstances. It would be rare indeed for an employee to be promoted at shorter intervals. But by moving from one enterprise to another he can secure higher positions at shorter intervals. Actually it seems that it is not unusual for a person who has been promoted to a higher post to obtain a further 'jump' by shifting to another organisation within a short time after promotion. This possibility is an important factor contributing to the tendency towards migration; even good firms in the private sector are losing qualified technical personnel to other firms—public or private—because of this possibility for employees to obtain a 'jump'. Experienced industrial engineers, for example, have been lost not only by Hindustan Aircraft but also by Tata Iron and Steel Co. because of this factor.

Relative Effect on Public and Private Undertakings

7.12 While this problem is thus common to both private and public undertakings, the latter are in some ways specially

in difficulty because of certain factors. In the private sector, when a new enterprise is being set up or an existing enterprise is expanding, and certain important positions are to be filled up, the more usual approach is to select the best personnel available, even if it involves upgrading of the post in terms of remuneration. Salary policy in private enterprises is usually more flexible than in the public sector. As mentioned earlier, scales are frequently revised by good firms in the private sector so as to keep pace with the changing conditions in the personnel market. Especially when certain key positions are to be filled up for which persons with special kinds of experience are required, private firms do not mind paying substantially higher emoluments than what the person is already getting in order to secure his services. Public undertakings, on the other hand, tend to be more rigid in these matters; their managements would not, for example, like to take a man on a salary substantially higher than what he is getting. There is also the Government directive due to which one public undertaking cannot take away an employee of another undertaking without the latter's consent. As indicated elsewhere in this study, this prohibition does not always prevent the management of a public undertaking which is badly in need of a certain type of person from taking him away from another public undertaking; but it is not easy to do this without facing a great deal of inter-enterprise, inter-ministry and inter-governmental wrangling. Therefore migration from one public undertaking to another in search of 'jumps' is not very common. However, when posts in new public undertakings are advertised, personnel already employed in the public sector may find that posts of a kind similar to theirs carry a higher scale of pay. It is true, as we mentioned earlier, that this may be deceptive in some cases. But it is not always so; and when it is found that persons from private undertakings, or a fortunate few who are permitted to apply (maybe because they are not considered good enough) from public undertakings, are able to obtain significant advancement, either because they secure a post which carries a higher scale of pay or because they are given advance increments, persons who remain in the older undertakings are bound to feel dissatisfied. This turns

the thoughts of many of them towards migration to a private undertaking.

Migration Between Public and Private Sector Undertakings

7.13 As a result of all these factors, there is a tendency for public enterprise personnel to migrate to private sector undertakings in search of 'jumps'. A number of examples of this kind of migration were furnished to us in the course of our investigation. A Methods Engineer from the Indian Telephone Industries went to a private sector firm on double the salary he was getting. At Sindri a young engineer was found to be so good that as an exceptional case, within three years of the completion of his training, he was promoted to a post in the scale of Rs. 600-1000. But within a short time after his promotion, he left to join a private concern which paid him about double the salary that he was getting. Experienced and talented personnel at Hindustan Antibiotics are being lured away by private firms which offer them higher salaries. Thus there is a real danger that public undertakings may tend to be training schools for providing trained and experienced personnel—at least some of the best among them—to private sector undertakings. Especially in the case of technical personnel, the initial training given by some of the new public sector undertakings is very valuable. Moreover, they get acquainted with the latest techniques and equipment and therefore get to be very valuable after some time. Private sector undertakings do not mind offering them very high initial salaries so as to secure for themselves well-trained and experienced personnel.

7.14 It is true that, to some extent, new public undertakings also provide good openings which attract personnel from private undertakings in search of 'jumps'. It is therefore not purely a one-way traffic. But our impression is that the loss from public sector to private sector undertakings is greater in volume and more persistent; the other-way movement is largely confined to the initial stages of a public sector undertaking and even this takes place on any significant scale only in the few cases like steel or oil where a new public

sector undertaking is organised broadly in a field where private sector undertakings are already operating.

Programmes for Personnel Development

7.15 Well-managed firms in the private sector generally follow a policy of personnel development which enables them to fill newly-created or vacant positions mainly by promoting their own junior personnel. To that extent, the draft on public sector undertakings is reduced. But other firms, especially small ones—and their number is increasing as a result of our economic growth—find it cheaper or more convenient to attract people from outside by offering large increases in remuneration. Public undertakings can meet this problem only by pursuing a well-thought-out policy of personnel development. This is also essential to meet the increasing requirements of personnel to fill positions of higher responsibility which are rapidly increasing in number as a result of the expansion of public sector units. Unfortunately, while most of the public sector undertakings, especially the new ones, have well-organised programmes for the initial training of newly-recruited personnel at various levels, few of them have got as yet any kind of personnel development programmes to take care of expansion and wastage. That is an important reason for the difficulties faced by them.

Special Problem of Large Numbers in Same Age Group

7.16 A significant factor that is already creating some difficulties for new public sector undertakings like Hindustan Steel and Heavy Engineering and that is likely to assume greater dimensions in the near future is that because of the large requirements of qualified personnel, a large number of fresh graduate engineers have been recruited by these undertakings, almost all within a period of three or four years. Providing adequate opportunities of advancement to these young engineers, largely recruited at the same time, is bound to be difficult. It is true that as these enterprises are likely to require a number of persons at various middle-level positions, there would be good chances for a certain

proportion of the young engineers to be promoted. But leaving aside a few who may be obviously superior or obviously inferior, the average quality engineers among them will all require to be promoted approximately together; otherwise there are bound to be difficulties, allegations of favouritism and the like, which would lead to demoralisation. As most of these undertakings are expanding, by way of expanding the capacity of the existing units, the setting up of new units or both, the difficulty may be warded off to a certain extent. But even then a very carefully worked out policy of advancement will be necessary if trouble is to be avoided. In the case of such persons as cannot be given promotions with their colleagues, a policy of making their services available in a planned way to other newly-developing enterprises will have to be worked out. Otherwise this specially selected and trained personnel is likely to be lost by the public sector. A generous way of looking at it will of course be that what is lost by the public sector will be gained by the private sector and therefore there will be no loss to the national economy as such.

Specialised Jobs

7.17 A somewhat similar problem arises in the case of certain specialised lines of work where the number of higher posts is not large. Take for example, industrial engineers, design engineers or research scientists in an industrial organisation. Such work may not require the creation of a hierarchy with a number of posts at various levels; and the number of senior posts may be quite small as a proportion of the basic grades. The result is that advancement opportunities are few and therefore personnel feel dissatisfied and tend to look for outside openings. In this case also, efforts could be made for planned placement or release of personnel who have reached a certain stage and for whom there are no prospects of advancement in the near future. Alternatively some special scheme of remuneration will have to be adopted for them. Another alternative could be to provide avenues of promotion to some of them in lines outside their own technical specialisation. We shall discuss these various

policy measures in the next part of our study. It only needs to be mentioned here that this is also an important factor in creating the tendency towards migration.

VIII. FACTORS AFFECTING MORALE

8.1 Remuneration, material benefits and promotion prospects are not the only factors that affect the loyalty and continuance in service of the personnel in an organisation. There are also other factors that influence the morale and the attitude of the employees at different levels to the employing organisation. We shall briefly comment on some of the factors that we found to be important in determining the morale of technical personnel in public industrial undertakings.

Image of the Organisation

8.2 The image of the organisation as projected in the country as a whole seems to have some importance in determining the employee's attitude towards continued employment therein. This factor is probably even more important in attracting the better-quality graduates for initial employment. It is unfortunate that the public image of foreign-controlled private firms as employers seems to be better than that of most Indian concerns—whether in the public or the private sector. The image of some public sector undertakings, however, seems to be good compared to private Indian undertakings. The Air-India International seems to have been successful in building a very good image of itself and many of their senior technical officers mentioned this as an important factor in attracting and retaining talented personnel. Hindustan Steel, because of the great publicity given to the new steel projects and their importance, seems to have benefited from this factor in its early stages. Hindustan Machine Tools seems also to have been successful in building up a good public image. On the other hand, the D.V.C., which was once considered to be a very ambitious and new kind of project and therefore attracted good talent, is now becoming a demoralised organisation. Employees feel that the future of the Corporation is uncertain, there are occasional rumours about its being wound up at some stage, and there is a feeling that it is not going to

expand very much. Sindri, as mentioned earlier, at its inception attracted the cream of chemical engineering talent in the country. But one finds now an atmosphere of dissatisfaction pervading it. Departmental undertakings seem also to be suffering from demoralisation, partly caused by this factor. Service under Government, especially in the 'gazetted' ranks, was once coveted. Now one finds that entry into the Railways or the Telegraph Engineering Service is usually not the first preference of technical graduates.

8.3 The dangerous fact about the situation as we see it is that while in the early stages of a project, the public image about it is quite favourable, this is not sustained later on. New employees are not attracted and existing employees do not continue to feel proud of belonging to the organisation.

Job Satisfaction

8.4 An important factor responsible for attracting bright new technical graduates, and even senior and experienced personnel, to some of the major public undertakings is the type of technical work-experience that people can obtain in them. Undertakings like Hindustan Machine Tools or Heavy Engineering Corporation are engaging in work involving new techniques that were not very much developed in India before. They therefore provide a challenge to the technical ability and intelligence of engineers which makes work in them attractive to those interested in their profession. The National Coal Development Corporation can attract mining engineers because of the new techniques of mining and the modern mining equipment that is being increasingly introduced by the Corporation. The petroleum undertakings in the public sector have attracted experienced personnel from private foreign-controlled—petroleum undertakings because of the challenge of new work-opportunities which they could not expect in their previous employment. Bharat Electronics and Indian Telephone Industries similarly seem to be able to provide a certain attraction to persons trained in telecommunications. Because of the special type of equipment used, new designs

and methods of construction and the magnitude of the work, D.V.C. as well as Bhilai attracted a number of competent civil engineers. This is an important factor in favour of new public undertakings, because most of them are being organised either in fields which are almost new to this country or on a scale and with techniques which are unprecedented and up to date.

Lack of Appreciation of the Technical Point of View

8.5 As against this, there are certain other factors which lead to dissatisfaction among professionally competent technical personnel working in public undertakings. One complaint that is frequently voiced by even senior level technical people is that technically knowledgeable persons are rare in the top managements of public undertakings. This not only means that technical personnel feel a sense of grievance that they have always to play second fiddle; they also feel that the people in top management positions, because of their lack of technical knowledge or industrial experience, fail to understand their point of view. They feel frustrated because they cannot get their ideas and requirements appreciated. The importance placed on procedures and rules is excessive and, as a result, work suffers; and it is the technical people who get the blame as they are supposed to be in charge, whether it is construction or operation of a project. The financial and accounting control is, in most public undertakings, vested in the hands of persons who have predominantly a government secretariat background, and who therefore tend to apply the same procedures and methods in an industrial organisation. To explain to such persons why a slightly costlier equipment needs to be purchased or why a certain number of staff is necessary and a smaller number will not do, is a time-consuming and frustrating experience in the opinion of many technical officers. Valuable time is lost, talented people either quit or are no longer available, and only then, when the bad effects of the policy become obvious, it is said, it becomes possible to get approval to a proposal put forward by technical people.

8.6 The inexperience of top management in technical or industrial matters and their remaining with a particular undertaking only for a few years, as is generally the case, is also said to lead to a lack of trust in the technical personnel in the undertaking. The result is that advice is sought from a number of outside quarters, foreign consultants are engaged, and only then are decisions taken. The Damocles' sword of 'accountability' and audit helps this tendency further. Many senior technical officers in public undertakings feel that non-technical top management tends to trust foreign technicians more than Indian ones and that this leads to frustration.

8.7 It is difficult to say how far all this is true. But our investigation certainly leads us to believe that such feelings and thoughts are widespread among technical personnel in public undertakings and, whether justified or not, they affect adversely the morale in these undertakings. The fact that there are a few concerns like Hindustan Machine Tools, where we did not find such feelings spread to any significant extent, is also enlightening. Hindustan Machine Tools is one of the few concerns where there are few persons at the top management level who have no industrial background.

Sense of Fairness and Security

8.8 Public undertakings, because of the fact that they are publicly owned, are accountable to Government and Parliament, and are managed at the top levels mainly by persons who are built up in the traditions of the public service, have certain inherent advantages from this point of view. Rank injustice, such as one frequently hears of in the case of many private firms, is rare in public undertakings. Especially in matters affecting personnel, procedures are insisted upon which ensure at least a minimum degree of fairness to all concerned. Moreover, even if there is some unfairness or injustice in deciding a matter at a certain level, there is always the possibility of appeal, sometimes up to the highest levels of government. This provides a sense of security which, while it has its troublesome effects, makes for a

certain degree of satisfaction and therefore good morale. This is an important factor assisting public undertakings in attracting and retaining competent personnel.

8.9 However, we also came across a number of complaints in the course of our investigations which, whether in all cases justified or not, need to be mentioned so as to understand the factors at work in public undertakings. Because many of the organisations had to be built up in a short period of time, it was said, considerable authority has had to be placed in the hands of a few top officers. A number of officers, even at the top level, had to be obtained on loan from Government services. Recruitment had to be left in the hands of the undertaking. Promotions in some cases have had to be left largely to the discretion of top officers. The result of this, it is said, is not always happy. It is frequently alleged that persons coming from the region to which the top officer belonged, or those coming from his former organisation or department, were preferred. Of course this is something that is quite commonly found in private firms; Parsis occupy a large number of top positions in Parsi firms, Punjabis in Punjabi firms and Gujaratis in Gujarati firms. But in the case of public undertakings, this is obviously not expected to happen.

8.10 There is also pressure from State Governments regarding preferential treatment to persons from the States in which the undertaking is located. While the Government of India has decided to give such preference only in the case of low-level posts, it seems that it is not always possible for managements of public undertakings to resist pressure for preference to local persons even for higher level posts. This difficulty is further enhanced by the practice adopted by some undertakings of appointing the senior officer in charge of personnel (generally a Deputy General Manager) almost invariably from the service of the local government. This leads to creating expectations and fears that one's prospects of employment and promotion depend more on whether one comes from the same region or not, and on pleasing influential persons outside rather than inside the organisation. Again it needs to be said that such factors affect

private undertakings also. We came across the case of a large undertaking in the private sector which selects graduate technical apprentices on the basis of an examination, but which provides a special quota for persons coming from the region where the undertaking is located. We also came across both public and private undertakings which have successfully been able to resist such pressures. But our impression is that these pressures are coming to be more powerful, and if this continues, it is bound to have an adverse effect, as in some cases has already been happening, on the morale of employees.

Human Relations

8.11 'Human Relations' is now accepted as one of the most important factors affecting the morale of an organisation. In the course of our investigations we came across a number of cases which throw some light on this aspect of the working of public undertakings.

8.12 In some of the new public undertakings, we found that because of good leadership at the top, and proper management practices, a team spirit had been built up among the cadres at various levels of the organisation. A feeling of *camaraderie* prevailed; younger as well as middle-level technical officers felt confidence in their bosses and believed that they were all working for a common purpose with mutual understanding. Hindustan Antibiotics, Hindustan Machine Tools and Indian Telephone Industries can be mentioned as examples of this happy feature. Even at Sindri, which seemed to us not to have a high degree of morale at the moment, an important point stressed by many technical officers was that even officers at junior and middle levels feel that they are participating in the management process. They are consulted about various matters and, whether their views are ultimately accepted or not, they have the satisfaction of having had the opportunity of contributing to the decision-making process.

8.13 In some of the undertakings, however, the situation in this respect is not very happy. In Hindustan Steel especially, one finds a sense of frustration and dissatisfaction

among a large number of technical officers both at senior and junior levels. While the situation is somewhat different in the two plants which we could study, basically the atmosphere is one of lack of common purpose and understanding. Young engineers, specially selected and carefully trained, we many times found to be harbouring many grievances. Some of them feel that they are not wanted by the organisation. Their grievances are of many kinds. Some find that they are doing the duties of foremen but are paid only as assistant foremen. Those who are working in operational jobs feel that they are being discriminated against as compared to their colleagues who have been put in staff departments like industrial engineering, designs, etc. It is alleged that promotions are more rapid in these new staff departments than in line jobs though the latter involve more arduous work and greater responsibility. There is also a feeling that the allotment of people to different departments, many of them starting with the same qualifications and many times having had the same training, has not been done on any systematic basis and that favouritism has played an important part. Even regarding operational jobs, the rate of promotions varies from department to department and therefore young engineers find that some of their colleagues get promoted faster. At Bhilai, for example, because coke ovens started functioning much earlier than rolling mills, engineers working in the former obtained operational experience earlier and so were promoted earlier. The proportion of higher posts in different departments is also different and this further affects the rates of promotion.

8.14 No doubt many of these difficulties are essentially those of a new and complex organisation and will solve themselves in course of time. Some of the grumbling is also likely to be due to the fact that, as a senior officer explained, many of these young engineers had false notions of their prospects; they all seemed to expect big jobs within a short time. As unfortunately happens with quite a significant proportion of our engineering graduates, they are not always willing to do the arduous work involved in operational jobs and prefer desk jobs. (This is of course not true

about all; we came across quite a number who were quite happy working in 'hot shops'.) Sometimes they are not willing to work under persons who might have no formal qualifications but who have a great deal of practical knowledge and experience of work in the particular industry.¹ Management has good answers for some of the complaints. For example, about assistant foremen doing the work of foremen, it was pointed out to us that this was only apparently so; because of their lack of experience, both of technical work and handling people, superior officers have to take a large part of the load of work on themselves. The management is also thinking of applying certain criteria for promoting people as rapidly as possible.

8.15 The really serious failure therefore is the failure in 'communication'. Though the management has a policy which is generally justifiable and though many of the grievances are only imaginary, the fact is that they are widespread and persistent and the management has failed to satisfy these young men. Their immediate superiors cannot give them satisfaction because they themselves do not know what the policy is and what the answers are to these grievances. Actually some of them support their subordinates in their complaints. There may be a number of reasons for this. The various plants have been facing continuous crises one after another and the whole attention of management has been concentrated on completing construction, starting operations and reaching capacity output. There have also been a number of changes at the top level and the relationship between the headquarters organisation and the plant management is still being put on a proper footing. As a senior management official put it, everything is still in flux and not enough time has been available to attend to these personnel problems. Nevertheless, it is a serious thing for this giant undertaking, which is the pride of the country,

1. This also seems to have been one of the reasons of Air-India International losing a large proportion of their graduate apprentices. They do not like to work under experienced but formally unqualified persons and the latter feel hostile towards them. There is an apprehension that these graduate engineers will rise rapidly to higher positions which otherwise could be available to experienced but formally unqualified personnel from within.

that there should be such a widespread failure of communication and therefore there should be so much dissatisfaction. If the brilliant technical talent that Hindustan Steel has attracted and so carefully trained is to be retained, these defects will have to be removed.

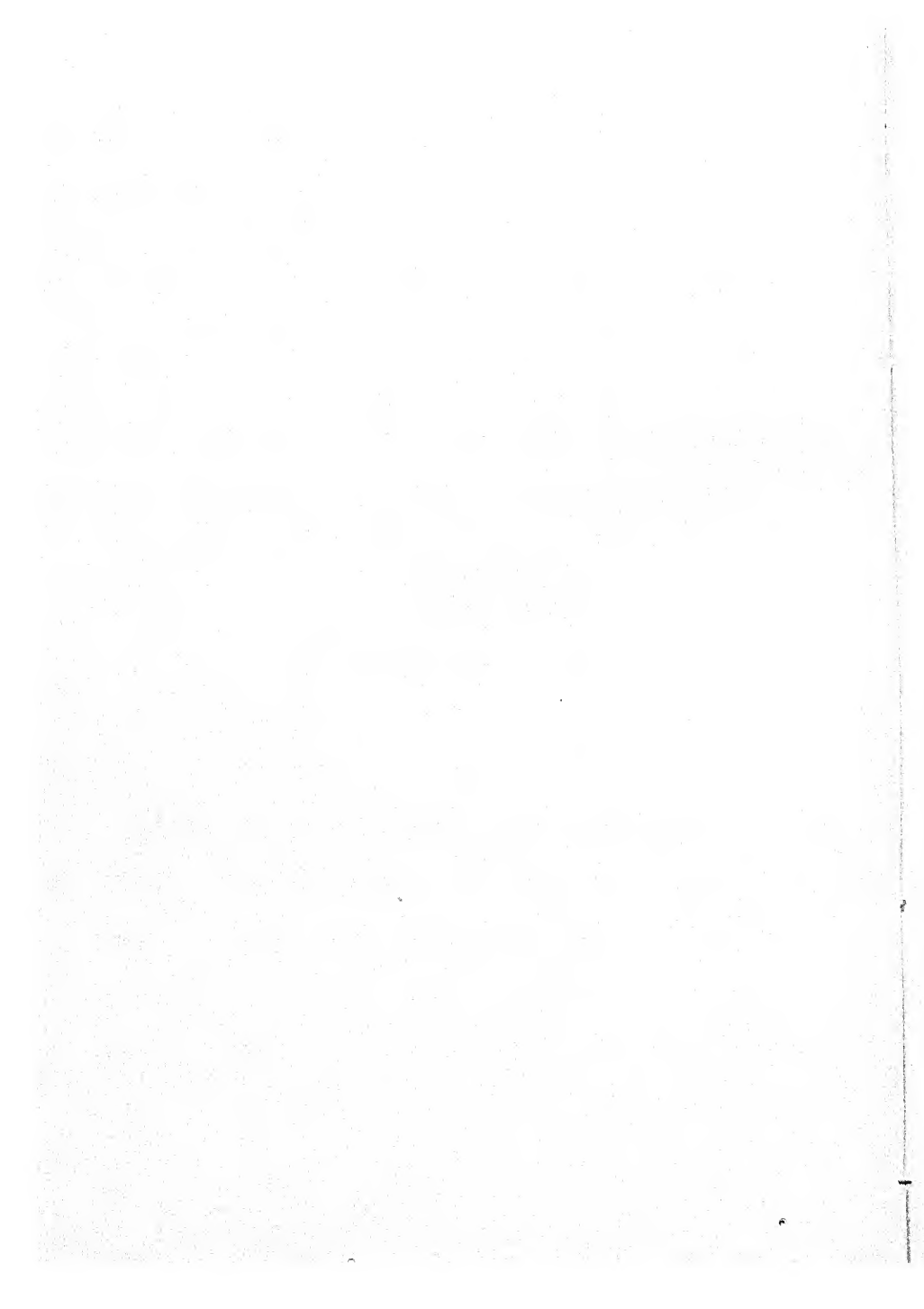
8.16 In some other undertakings also one finds a similar feeling of frustration mainly arising out of the fact of remoteness of control. For example, the P. & T. workshops are a part of a big organisation; in spite of various organisational devices that have been tried, the technical officers working there seem to feel that their problems and requirements go unheeded by the top management. They feel that in spite of their immediate superiors' appreciation and understanding of the problems, decisions that are required to be taken are not taken in time, and sometimes not at all, because of the remoteness of the authorities that can really take decisions. This is a feeling commonly to be found not only in departmental undertakings but surprisingly, to some extent, even in corporate public undertakings. There is no doubt that this can be an important cause of frustration and low morale.

Importance of High Morale

8.17 We have devoted so much attention to the various factors affecting the morale of technical personnel in public undertakings because we think that the state of morale has considerable influence on the turnover of personnel. Good talent will be attracted if the public image of an organisation is good; it can be retained, and retained willingly, only if there is a high degree of morale and employees generally feel satisfied. High morale involves loyalty to the organisation and a sense of participation and commitment, and when these exist, employees will not be easily lured away even by material rewards. Poor morale, on the other hand, makes it difficult to retain personnel and therefore migration is likely to arise specially in organisations where the morale is low.

PART III

FUTURE POLICY



IX. OBJECTIVES OF POLICY

The Nature of the Problem

9.1 In any economy where rapid changes in the industrial structure are taking place, the problem of migration of technical personnel is bound to arise. Moreover if the nature of industrial techniques is changing, so that techniques which were in little use earlier are being introduced rapidly, the few persons who have had training in and experience of such techniques are bound to be in great demand and they may find it profitable to move from unit to unit in search of increasingly better prospects. We find examples of such situations in the economic histories of many countries. In the U.K., for example, one of the major problems in the early years of the Second War was the problem of 'poaching' of skilled technicians by various industrial units from each other, and a policy had to be devised to regulate this movement.¹ In the Soviet Union, this problem had assumed such proportions even when the First Five Year Plan was just beginning that the Central Committee of the Communist Party had to issue a decree in 1929 against permitting rapid movements of technical personnel. This however does not seem to have been successful and the problem continued to plague the Soviet economy throughout the '30s.² Similarly in Czechoslovakia, 'job-hopping' became a common phenomenon in the early '50s and various steps had to be taken to curb it.³ Sometimes, such 'flight' even takes place across national barriers as a result of large differences in prospects and emoluments between countries.⁴

9.2 The Engineering Personnel Committee had drawn attention to this problem in its report in 1956 and had pointed

1. See H.M.D. Parker : *Manpower, A Study of War-time Policy and Administration*, London, 1957, pp. 6, 67, 68, 425.

2. See D. Granick : *Management of the Industrial Firm in the USSR*, New York, 1954, pp. 47-48, 51-56; also H. Schwartz : *Russia's Soviet Economy* (Second Edition), 1961, pp. 523-26.

3. See E. Taborsky : *Communism in Czechoslovakia, 1948-1960*, Princeton, 1961, p. 375.

4. Report of Engineering Personnel Committee, *op. cit.*, p. 32.

out that "in recent years, the 'flight of personnel' among engineers is reported to have assumed disconcerting proportions".⁵ Our study shows that while the migration of engineers has not affected all enterprises and all categories of engineers to an alarming degree, it has assumed serious proportions in the case of some undertakings, especially in the public sector, and that the problem is likely to become increasingly troublesome in the future. It is therefore necessary to adopt policies which would effectively counteract the tendencies towards large-scale migration.

'Vertical' and 'Horizontal' Movements

9.3 As we have already mentioned earlier, not all 'migration' is undesirable. A certain degree of mobility between jobs is an essential instrument of developing an experienced group of engineers in the country. Moreover, with a number of new industrial units being set up as a part of our programme of industrialisation, migration of personnel from the old industrial units to the new ones is inevitable and necessary. If there is a shortage of experienced engineers, this should be equitably shared by the various undertakings, old and new; the tendency towards 'stockpiling' of qualified and experienced personnel on the part of old undertakings cannot be countenanced. On the other hand frequent 'job-hopping', which does not help either the employee to attain better knowledge or experience, or the employing enterprise to obtain the full benefit of his ability, has definitely to be curbed.

9.4 Migration of personnel can be of two types: 'vertical' movement and 'horizontal' movement. Where a person moves to a job requiring greater ability and experience, technical, managerial or both, this may be called 'vertical movement'. Where he moves to a job requiring practically the same ability and experience, in most respects at the same level of responsibility in a similar-sized undertaking, this can be called 'horizontal' movement. By and large, it can be said that vertical movement is not only good

for the individual but also for the community. A person moving to a job of greater responsibility, because he is found to be capable (or at least the least incapable) of carrying it out, contributes more to the national product and therefore such movement should not be prevented. Of course, care has to be taken to see that the movement is really a vertical one and not a horizontal one, disguised as a vertical one. It is also necessary to see that such movements are not too frequent. Each industrial unit has its own peculiarities which even a skilled engineer takes time to master; and if he moves too frequently, he may not have had time really to make a contribution to the working of the unit. Subject to these limitations it can be said that vertical movement should not be discouraged.

9.5 Horizontal movements, on the other hand, belong to quite a different category. By and large, such movements arise purely as a result of 'poaching', luring away by one employer of employees of another unit by the offer of higher emoluments, even though the nature of work, responsibility, etc. are similar. In an economy where there is a sellers' market, as a rapidly expanding economy generally has, most units are able to pass on to the consumer any addition to costs. The only effect of such movements is to raise salary and wage rates, and therefore costs and prices. Such movements are therefore, in the main, undesirable and need to be curbed. Of course, a certain degree of horizontal mobility is necessary in the case of highly qualified personnel in order to broaden the horizons of their experience. But this should happen more as a part of the personnel development programme within an enterprise or group of enterprises rather than by unplanned, erratic, horizontal migration. Another case where horizontal movements may be justified is when new enterprises are set up. These latter may require a core of experienced personnel. But such personnel, when moving, would normally expect—immediately or within a short time—to be placed in positions of higher responsibility and therefore it would virtually be a vertical rather than a horizontal movement. Secondly, if the setting up of new units is not to give rise to a continuous 'poaching' process and the

resultant inflation of salary scales, such horizontal movement as is necessary for satisfying the requirements of new undertakings must be organised properly. It should preferably take place through agreement between the old and the new units. When, as is happening increasingly in the public sector, all units—old and new—in an industry are under a common overall management, this can be easily done. That this can be done even when the units are under different managements has been indicated by the arrangements worked out between the older steel units in the private sector and Hindustan Steel.

Priorities in Terms of Industries and Functions

9.6 In this study, we are more concerned with the problem of migration as it affects public sector undertakings—either intra-public sector migration or migration from the public sector to the private sector. But from the point of view of the country as a whole, it is obvious that large-scale horizontal migration is undesirable, whether it is from public sector to private sector or *vice versa*, within the public sector or within the private sector. It needs to be made clear that we cannot look with favour upon migration from the private sector to the public sector as such.

9.7 A much better approach to the problem, from the point of view of national economic interest, is to think in terms of priorities regarding different kinds of industries. Certain industries may be more vital to the economy, either because of their contribution to economic growth or because of their contribution to the supply of essential consumption goods. A scale of priorities can be worked out on this basis regarding the allocation of technical manpower which is in short supply, just as in the case of allocation of raw materials or foreign exchange.

9.8 Priorities can be similarly established regarding allocation of scarce technical manpower amongst different functions in industrial undertakings. There may be functions in which technical knowledge and experience are essential if they are to be carried out efficiently; there may be others

where the use of technical personnel is useful but not quite essential. An example of the latter would be the 'sales' function; many firms selling industrial machinery or raw materials find it quite useful to employ technically qualified personnel for 'sales'. But this may not be quite essential; at the least the number of such persons allotted to the 'sales' function could be kept at a minimum level.

9.9 There may also be many technical jobs where persons with less technical knowledge and experience could well fit in. A comparative study of the employment of graduate engineers in similar industries in the U.K. and India seems to indicate that in the U.K., in many industries, a large number of persons without formal qualifications are used for positions which are occupied in India by persons with degrees in engineering.⁶ To the extent that it is possible to carry out certain functions through the employment of persons whose supply is less short rather than of those whose supply is more short, it will be of advantage to the economy as a whole to do so. The objective of any policy, therefore, should be to ensure that the allocation of scarce technically qualified and experienced personnel is so carried out that industries and functions where their employment will make a greater contribution to the national economy will get priority.

9.10 While it would obviously be incorrect to say that all public sector projects have a greater contribution to make to national economic well-being than all private sector projects, it would not be far wrong to say that most of the industries and projects in the public sector have a greater contribution to make to the building up of the growth potential of our economy than most of those in the private sector. This is especially true with reference to the allocation of engineers. Whether we think of industries or mining or construction, broadly speaking, public sector projects are more vital to the economic growth of India than private sector projects. This is obviously not true of every unit.

6. See: "A Preliminary Study of the Pattern of Engineering, Employment in Manufacturing Industries in India", Planning Commission, Perspective Planning Division, May 1957, p. 21.

There are projects—or parts of projects—in the public sector which can only be considered as low priority projects—construction of administrative buildings, or improvement of passenger amenities on railways, may be cited as examples. There are also private sector projects in the field of steel, cement, various kinds of machine-production, etc. which should have high priority because of their contribution to potential economic growth. But, broadly speaking, most public sector projects can be placed at a higher level of priority than most private projects. Public policy should therefore aim at ensuring the allocation of scarce technical manpower to most public sector projects in priority to most private sector projects. In order to avoid any controversy over public *versus* private sector, however, it may be worthwhile to lay down priorities in terms of industries and functions, and the policy should aim at helping the allocation of scarce manpower according to these priorities.

Objectives of Policy

9.11 The objectives of a policy in this regard can be laid down as follows:

- (1) To reduce unplanned and large-scale horizontal movement of technical personnel where it exists and to prevent it where there is a potential threat that it will arise.
- (2) To reduce and if possible to prevent over-frequent vertical movement.
- (3) To ensure adequate supply of various kinds of technical personnel to industries and functions which are listed high in the scale of priorities from the point of view of their contribution to the national economy. This will require attracting personnel to these industries and functions, retaining it there, and preventing or reducing its employment in low priority functions and industries.
- (4) To increase the supply of personnel which is in shortage.

Limitations on Instruments of Policy

9.12 Before going on to discuss the various aspects of the policy to be followed for the attainment of these objectives, certain limitations regarding the policy that can be pursued should be made clear. The Government of India has adopted an economic policy which assumes the existence and maintenance of a 'mixed' economy. Though, as a result of the acceptance of 'planning' as a basic tool of growth, various kinds of controls and regulations on the organisation and working of private sector undertakings have come to be accepted, there are limits on what can be done by way of such controls and regulations. Control over the wages and salaries to be paid by private sector undertakings to their employees, especially the laying down of 'ceilings' for these, may be difficult in this context. Despite suggestions to this effect being put forward from time to time, the Government has decided not to attempt any such controls.⁷ In our discussion, we take this as a given decision and therefore an essential limitation on the policy that can be suggested. Similarly, we have to take note of Constitutional guarantees like those under Article 19(9) which would make it difficult in peacetime to enforce any kind of compulsory direction of personnel as was done in various countries in war-time or in the U.S.S.R. till recently. Even more than the provisions of the Constitution, the political forces operating in a democratic society will make it difficult to adopt and enforce a policy such as had been conceived in war-time under the National Service (Technical Personnel) Ordinance, 1940. Moreover, even if it was possible to adopt such a policy, it would not be easy to implement it. Even in the U.S.S.R., with a one-party system of government and all that followed from it, it seems that it was not easy to enforce direction of labour and prevent large-scale migration.⁸ It is not in the range of practical policy, at least at present, to think in terms of

7. See the reply given by Shri B. Gopala Reddy, Minister of State in the Ministry of Finance, on behalf of Government in reply to a debate on Shri Bhupesh Gupta's bill proposing a ceiling on salaries in the private sector—Rajya Sabha Debates, Vol. XXXII, March 10, 1961. Cols. 2464-2478.

8. See D. Granick, *op. cit.*, and H. Schwartz, *op. cit.*; also D. Granick, *The Red Executive*, London, 1960, pp. 35-37.

compulsory direction of personnel. Personnel is bound to remain largely free to choose employment. Whatever is attempted to be done by the Government regarding competition among public sector undertakings for obtaining personnel in short supply, competition with private sector undertakings cannot be eliminated. This does not necessarily mean that Government or public sector undertakings cannot exert any influence or pressure so as to prevent competition which disturbs all units and leads to a salary and wage inflation. There are many stages between unhindered, perfect or 'pure' competition, and direction. Formal and informal understandings may be arrived at or moral pressure can be applied. An expanding and vigorous public sector may even be able to exercise 'salary and wage leadership' similar to the 'price leadership' exercised by leading firms in a situation of imperfect competition. We shall explore these possibilities further in our detailed analysis of policy measures.

Special Characteristics of the Engineering Profession

9.13 At this stage of our discussion, it may also be worthwhile briefly to take note of the main characteristics of the persons with whose problems we are dealing in this study. We are confining our attention to specially qualified engineers—mainly those who have attained formal academic qualifications in engineering. As is well known, in the last decade or so, a very large proportion of the best talent in our country is flowing into engineering colleges. In the majority of cases, only those who cannot secure such admission go in for pure science or other subjects. Thus the engineers, especially the younger ones, represent the cream of talent in the country.

9.14 An engineer—like most other professional personnel—invests many years in education and preparation for his work. The job therefore is an inherent and vital part of his life; his commitment to his work is deep and lasting. Unless he is turned into a cynic as a result of adverse environment, his desire is not to escape work but to seek fulfilment at work. Pay is important to him, as it is to anyone else. But no level of pay will satisfy an engineer with

professional interest if he feels that his time is being wasted. Idleness and insufficient opportunity to use his talents are not only a waste—a talented man also knows that these will destroy his capacities and potentiality. Challenging tasks can therefore attract the talented engineer. But in order to carry out the tasks that face him he also needs an organisation and a top management which recognise his needs and appreciate his problems. Many highly talented engineers in India, both in the public and private sectors, feel that they have to work under managements which have little understanding of their ideas, problems and requirements.⁹ How far this feeling is justified and what changes in top management and organisation are necessary are subjects that we cannot pursue here in any great detail. But it needs to be pointed out that this feeling of being dominated and oppressed by others in a way which does not permit the engineer to put forward his best is widespread in the country. This can be dangerous in any country and in any enterprise from the point of view of getting the best out of the available engineering talent. It is specially dangerous in India at present because of the shortage of talent and the rapid technical change that the country wants to bring about through the establishment of enterprises where technical knowledge and skills, hitherto little known or used, have to be employed and developed on a large scale. Public enterprises, generally developing new industries and utilising modern machinery and methods, are in special need of attracting the best engineering talent in the country and getting the most out of it.

9.15 The market for engineers is however highly competitive. The competition is not only from private sector undertakings within the country but also from other countries. There is a significant though fortunately not very large number of highly qualified Indian engineers who prefer to stay abroad. This is not only due to the difference in emoluments. The whole environment of some employing organisations in India is found to be wanting in comparison

9. See, *e.g.*, Presidential Address by Major-General Harkirat Singh before the annual general convention of the Institution of Engineers (India), Bombay, February 4, 1961.

with foreign concerns. Even though there is a shortage of engineers, recruitment methods and policies and the approach to prospective employees is many times as indifferent and condescending as was the case when there was widespread unemployment among engineers. Many examples can be given of this and other aspects which create a repugnance in the minds of the young talented engineers.

9.16 "The professional labour market", it has been said, "is new and highly competitive. ...The best professionals are often the most restless, the most demanding and the most mobile. National and international labour markets require employers to be more responsive to their economic and emotional needs. Each organisation must appeal to the best by providing a more attractive environment than does the competition."¹⁰ Only by providing a total environment which satisfies the material as well as the creative needs of talented personnel can an organisation attract and retain an appropriate share of the best talent. Retention of the best talent is important because, unlike machinery, manpower is an asset that appreciates, and does not depreciate, the longer it is employed. That is one of the reasons why large scale migration of employees can be such a disaster for any enterprise.

9.17 In the following chapters we shall discuss the various factors that affect this total environment and thus attract or repel talented engineering personnel in relation to public undertakings.

10. Jerome M. Rostow: "Growing Role of Professional and Scientific Personnel", *Management Record*, Vol. XXIV, No. 2. February 1962, p. 19.

X. RECRUITMENT AND INITIAL TRAINING

Proper Proportion in Recruitment

10.1 In this chapter, we shall confine ourselves to the recruitment of fresh graduates or others just coming out of educational institutions. We shall take up in a later chapter the problems of recruitment at higher levels.

10.2 The recruitment consists broadly of three types of persons from the universities and other educational institutions: (i) engineering graduates; (ii) persons with three years' post-matriculation diploma; and (iii) persons who have done a degree in science or, sometimes, who have completed the first two years of a science course. While our study is largely confined to the first two categories, the third category needs to be brought in the discussion to some extent in the present context.

10.3 The reason is that in many enterprises, there is a tendency to recruit more persons with engineering degrees and diplomas than is strictly warranted. An engineering graduate, even if he does not mind starting his career at a junior supervisory level such as Assistant Foreman, is not content to be in that position for long. Even though it is a good thing for him to begin his career in such a job, so that he gets acquainted with the technical and managerial problems at this level, this has to be only for a brief period. If he has to remain in such a position too long he becomes dissatisfied; and this is not only due to snobbishness—though it has something to do with it. He wants to use the specialised knowledge that he has acquired and there is little scope for it in such a job. Diploma-holders used to provide the bulk of the personnel for such jobs. But the supply of diploma-holders is considerably short of demand. It is therefore necessary to recruit a large number of persons with degrees in science or a few years' university education in science for providing the bulk of such personnel. As their supply is relatively more plentiful, it is not difficult to recruit them in adequate numbers and they are not too

discontented if they have to remain in these lower supervisory positions for long. They may start at the level of chargemen and the position of a foreman can be, for the majority of them, the maximum that they may hope for and be contented with. If engineering graduates or diploma-holders have to remain in these positions for long, they become discontented and therefore try to migrate to other enterprises. Having a proper proportion in the recruitment of these different categories is therefore important from the point of view of building up a contented and steady labour force.

10.4 Many undertakings in the public sector are already pursuing this policy because of the difficulty in recruiting engineering graduates and diploma-holders in adequate numbers for meeting their requirements. The Indian Telephone Industries, Hindustan Machine Tools, Hindustan Antibiotics and Hindustan Cables are recruiting a large number of science graduates and I.Sc.-passed candidates for their lower supervisory positions. Hindustan Steel, as mentioned earlier, recruited a large number of engineering graduates; many of them are still at the Assistant Foreman or similar levels and are discontented because of it. It was necessary in the early stages of Hindustan Steel to recruit such a large number of engineering graduates with a view to promoting them rapidly to occupy middle-level positions. But the time has come, and the management of Hindustan Steel realises this, when a larger number of persons belonging to the second and third categories need to be recruited for filling up on a long-term basis the lower supervisory positions. In the Tata Iron and Steel Co. also, we understand, the experience has been that persons recruited as apprentices from amongst the I.Sc. and B.Sc. candidates accept to stay in these positions—many times requiring arduous work in hot-shops—better than engineering graduates. The experience of Air-India and Hindustan Aircraft also, as indicated earlier, shows that such persons tend to stick on better because they have no formal qualifications which could help them in getting jobs in other concerns. Their knowledge and capacity are related to the

specific training and experience obtained by them in the particular unit and it is not easy for other employers to judge their capability. Their value to the parent organisation is therefore generally higher than their market value and thus they tend to remain with the parent employer more permanently.

Advance Planning and Recruitment

10.5 The proportion of the different types of persons to be recruited has to be worked out in advance taking into account the requirements of personnel in the future both due to normal wastage and needs of expansion, and also keeping in mind the essential qualifications and experience required for the various jobs and the possibility of holding persons to the particular jobs in the light of market conditions. If this is done, the possibility of discontent and resultant migration would be considerably reduced. Such forward planning regarding recruitment and training of personnel is also essential so as to reduce to the minimum the necessity to obtain people who are already in position in other units. The lack of such forward planning, recruitment and training makes 'poaching' inevitable. While most of the new public sector projects and some of the major private sector units have attempted to do this, there are a number of private concerns who fail to do so. Public sector projects under the State Governments also seem to default in this matter. Before a new project is sanctioned, it is necessary that the project authorities should be required to submit a plan regarding their personnel requirements and unless this is found to be satisfactory, the project should not be permitted to go ahead.

10.6 Another aspect of forward planning and recruitment needs to be specially mentioned. In order to have a proper age-distribution of different categories of employees, it is necessary to have regular recruitment—preferably every year—of persons from all the categories. Otherwise, either there are too many persons at the same level and not all can obtain opportunities of advancement, or there are gaps which require to be filled in by recruitment from outside.

This is important in the case of all categories, but especially so in the case of graduate engineers. Unless these have been recruited, trained and advanced appropriately, gaps may arise in middle management positions which can have a seriously adverse effect on the industry. Recruitment from the open market at the middle management level not only gives rise to the problem of migration; it also many times proves to be expensive and even then there is no certainty of obtaining a really suitable man. It is therefore essential that every undertaking prepares a plan for periodical regular recruitment of graduate engineers. Failure to do this, either because of lack of planning, or because of the difficulty in obtaining suitable material as a result of poor pay and prospects, can create a gap in the flow of technical officers which can undermine the efficient operation of an undertaking. In varying degrees, the Air-India International, Hindustan Aircraft, Ordnance factories and Hindustan Antibiotics seem to be suffering from a lack of adequate number of graduate-engineers at middle levels. While this may not always lead to perceptible difficulties immediately, it is a potential source of major troubles.

10.7 Another point that needs to be mentioned in this context is that a re-examination of the basic qualifications laid down as essentially required for recruitment will probably ensure the supply of better candidates and also avoid delays in recruitment. There is a widespread tendency to overstate qualifications; where a diploma-holder would do, a degree in engineering is stated as the qualification required; or where education up to I.Sc. would be enough, B.Sc. is laid down as necessary. One effect of this is that instead of getting a good man with lower qualifications, who could not perhaps continue to study because of financial or other such difficulties, a mediocre or third-rate man with a higher qualification is recruited. Another effect that is sometimes observed is that no suitable applications are received and therefore the post has to be readvertised with lower qualifications thus delaying recruitment and wasting resources.

Advertising for Engineers

10.8 In the present situation, when the demand for good engineering talent far exceeds its supply, an enterprise must adopt an effective policy of recruitment which enables it to attract the best candidates. Advertisements issued through newspapers are the main—in many cases the only—means adopted by public sector enterprises to obtain information about the candidates who are available and interested in obtaining employment with them. While most public enterprises are now adopting modern methods of sales advertisement, the advertisements for personnel continue to be of the traditional Government type. What a prospective candidate wants to know¹ is not only the first job that he will be appointed to if selected and the essential qualifications and remuneration for it; he also wants to know what are the prospects open to him for professional improvement and career advancement and also what other amenities he is likely to get. This is not probably necessary in the case of traditional Government services because an image about them has already been built up and there is considerable awareness among intending candidates about the nature of these services. But that is not the case with public undertakings many of which are quite new. All this information cannot obviously be put in the advertisement; but if it is made available to persons who call for application forms, it is bound to be useful in creating a favourable impression in the minds of the better class of candidates—and after all it is these who are confident that they have a choice, that an enterprise should attempt to attract.

Active—or Aggressive—Recruitment

10.9 Advertisement through newspapers should not be the only method of securing names of good candidates and trying to recruit them for the enterprise. In the U.S.A., U.K. and other advanced countries, a more aggressive recruitment policy is followed by large business concerns in order to secure the best personnel. Personnel officers keep in touch

1. See: Arnold R. Deutsch, "Scientists and Engineers, Where Recruiting Ads Go Wrong", *Management Review*, October 1961, pp. 26-35.

with the major educational institutions, interview the best candidates on the campus even before they have completed the course, give them information about the enterprise and the prospects open to them and ask them to contact the enterprise immediately after their results are announced.² This saves much time and, what is more important, the enterprise can secure the best candidate because he prefers to secure employment immediately after completing his course. Some concerns even go further, and after they have interviewed the candidates and obtained the assessment of the teachers about them, ask the better candidates to come and join as temporary apprentices even before the results are announced. Then they can be watched at work and therefore final selection, which is only made after the announcement of results, can be much more firmly based.

10.10 In India, in spite of the shortage of skilled and talented personnel, very few such techniques have been used by enterprises, whether in the public or the private sector, for getting the pick of the talent coming out of the universities. The traditional approach is that of sitting back and waiting for candidates to apply in response to an advertisement. There is not enough concern to ensure that the enterprise gets the best candidates available. The only instance of a special attempt to get good candidates that came to our notice was in the early recruitment of engineers for the Bhilai Steel Project. The Principals of a number of major engineering institutions were asked to recommend their top students as soon as the results were announced and these candidates were asked to come and join straightaway. The need was so great that it was decided that the risk of getting an odd unsuitable person was worth taking and the actual experience was that there was hardly any difficulty. But this seems to be a rare case. Largely, public undertakings have not gone beyond the traditional passive attitude and methods regarding recruitment.³

2. See, e.g., Charter W. Day : "College Relations : One Company's Programme", *Management Review*, June 1961, pp. 63-65.

3. cf. : "The Government is suffering from obsolescence in the policies and procedures (perhaps also in underlying attitudes) by which it recruits.

Assessment of Personal Qualities of Candidates

10.11 Another factor that affects the selection process adversely and leads to the creation of problem-personnel later is that too much emphasis is placed in selection on paper qualifications. Even regarding selections in the U.S.A., it has been pointed out, "There has been too much attention upon the 'labels' of degrees and courses and too little upon the essential qualities of character, mind, and spirit of candidates."⁴ Not enough use is made of the knowledge of the teacher concerned. Psychological tests and other such modern methods of selection are not used in the selection process by public undertakings. The experience of some private undertakings as well as that of the Ministry of Defence indicate that the use of these tests helps in reducing wrong selections quite significantly. But the actual suitability of the candidate for the kind of work that he will be expected to perform in the undertaking during the first few years of his employment can only be judged by seeing him operate, in some capacity or the other, in the unit. One good method of doing this would be⁵ to establish *liaison* with a few good engineering colleges by which a selected number will be brought to the undertaking for practical experience during their vacations. The students will not lose anything, they would get practical experience, while the enterprise will be able to mark the most suitable ones for recruitment when they have completed the course.

Delays in Selection Process

10.12 In the case of public undertakings, one factor that seems to affect effective recruitment is the long gap of time between calling for applications, interview and testing, and

and imagination. There is a tendency to assume that applicants for employment will come to the Government in the necessary quantity and of the required quality, although in fact the Government must compete in the open market for talent. In this competition it does not have a particularly advantageous position and must make the most of its attractions if it is to get its share of talent...", Commission on Organisation of the Executive Branch of the Government; Task Force Report on Personnel and Civil Service, Washington, 1955, p. 87.

4. J. Douglas Brown and Frederick Harrison: High Talent Manpower for Science and Industry, Princeton, 1957, p. 22.

5. See, *ibid.*, pp. 24-25.

the actual appointment. In one important and expanding undertaking, we understood that the gap extended at times to eight to ten months. Naturally, with so much demand for first-rate engineering graduates in the country, some of the best candidates get absorbed in the meanwhile and the public sector loses them. Moreover, as a result of such (and sometimes even longer) lapse of time, it is found that the number of persons actually available for appointment is smaller than required. So the whole process has to be repeated. The time and resources of the personnel department and many senior officers concerned with the selection process are thus wasted. Moreover, the whole time-table about post-entry training, placement, etc. gets upset.⁶ Lastly, such delays are not likely to provide a good introduction to a new employee about the efficiency of the organisation which he is trying to join. It needs perhaps to be mentioned that we also came across the case of a large well known private concern where, in the selection of engineering apprentices, between the application and the final selection, a gap of six months intervenes. The management is now trying to reduce this gap.

Post-entry Training

10.13 Because of a lack of actual work-experience during the years of university education, or because of the specialised knowledge and skills that the recruits need to acquire before they are actually put on to jobs intended for them, post-entry training has come to be important in many undertakings. Many of the new undertakings in the public sector have organised special institutes for this training. Thus one of the first things done in Hindustan Machine Tools and in the Heavy Electricals project was the establishment of proper training facilities for newly recruited staff. Some of these institutions, after fulfilling the immediate needs of the particular projects, have helped in the training of recruits for other sister projects. Sindri trained personnel for Nangal and Trombay and is now training

6. The delays involved in recruitment if it has to be done through the U.P.S.C. are sometimes even longer. For an example and comments, see Henry C. Hart : *New India's Rivers*, Calcutta, 1956, p. 143.

personnel for Rourkela and the H.M.T. School is now training personnel for the new machine tool units. For practical training, where a project is being started quite newly, arrangements have to be made in another unit, as was done for Hindustan Steel trainees at TISCO and IISCO.

10.14 Where it is felt that the required training cannot be arranged in India, either because the number of persons to be trained is too large, or because the type of skills to be acquired or techniques to be learnt are such as are not in use in India, arrangements for training have been made abroad. This has been generally one of the conditions of contracts regarding technical collaboration. The most ambitious amongst these programmes of training abroad was the one organised for the training of engineers for Hindustan Steel. The Heavy Engineering Corporation also has such a programme. Opportunity for training abroad has a glamour about it and we understood from our interviews with officers in many enterprises that it provides a good attraction for candidates. As generally it is the new enterprises that provide training abroad—once they settle down, they arrange for the bulk of the training in India and only a few candidates are sent abroad for highly specialised training—there is a special attraction to join them. (In addition to going abroad, of course, the feeling that if you are with a new large concern from its inception, you would rise faster is also an important attracting factor.) The training arrangements made in foreign countries is a subject we cannot adequately deal with in this study. We however received information suggesting that trainees have sometimes been sent abroad without any exact idea of what it is that they have to equip themselves for. Many of them being just out of universities had little practical experience, and therefore had no idea as to how to make the best use of the facilities available. Becoming accustomed to a comparatively high standard of life and looking at the standards of comparable technicians abroad also seems to have led to arousing over-high expectations in the minds of some of them and this is one of the reasons of the feelings of frustration and resentment that one notices among some of these young engineers.

10.15 Discussions with young engineers as also senior officials indicated to us that there is an increasing awareness among them that a prolonged stretch of formal training immediately after selection and appointment is not a good thing. What the young engineer needs is an acquaintance with actual work. Thus it seems that after a short period of induction, the young trainee should be put through various kinds of work—at the Hindustan Machine Tools, we were told, he starts by doing quite unskilled jobs to begin with—so that he gets acquainted with actual work and also with the organisation and the men who work there. Training of a formal type should then follow.

10.16 The training schedules should be such that the trainee would have to work as hard—perhaps harder—as if he were on a regular job. Initial softness at this stage seems to have had bad effects on the morale of young engineers.

10.17 So much attention has been devoted to the problem of recruitment and initial training in our study because we think that the policy adopted regarding these has a great deal of influence on the availability of good personnel for public undertakings. The better this is managed, the less would be the necessity for recruiting people at senior levels which creates problems of poaching and migration; also, better would be the morale of the engineers and so they could not be easily persuaded to migrate.

Graduate Engineer—Recruitment for Small Enterprises

10.18 A rather special problem that faces smaller enterprises in their recruitment of graduate engineers is that because of their size, and the small number of higher posts, they cannot get good candidates to apply to them. Concerns like the National Instruments Factory, Hindustan Cables and Hindustan Antibiotics face this difficulty. The best engineering talent gets attracted to the large enterprises which are in the public eye and where the prospects of promotion are likely to be good. One solution that such concerns are trying is, as mentioned earlier, to secure persons with less formal qualifications and training them for the specific jobs in the concern. Another could be to follow a more

aggressive recruitment technique as indicated above. Some special incentives by way of higher remuneration or other material benefits may perhaps have to be provided. A further way could be that recruitment for such enterprises could be a part of common recruitment for many enterprises or their requirements may be met from a common cadre of technical personnel.

Common Recruitment

10.19 Common technical recruitment for public sector undertakings on the lines of the recruitment for various engineering services under Government is sometimes proposed. It is said that in the case of basic categories like engineering graduates or diploma-holders, such common recruitment would have many advantages. From the point of view of the prospective candidate, instead of applying to a dozen or more concerns and perhaps having to appear for half a dozen interviews before he is selected and appointed, he will have to apply, in the public sector at least, to only one common recruitment board. There will be a single test or interview and on that basis he will be selected and allotted. Such a common board may also build up an efficient machinery for interviewing, testing and so on.

10.20 But there are serious disadvantages also in common recruitment. Such recruitment will tend to be more formalised, and because of the sheer numbers involved, personality and other individual traits will not receive enough attention. Intractable problems may also arise about the allotment of candidates among different undertakings. The initiative for trying to secure the best personnel available will not remain with the enterprise, and this will mean that what we described above as active—or aggressive—recruitment will not be practised. This would not be good for public undertakings in a mixed economy.

10.21 Now that we are increasingly having in the public sector groups of similar units under a common overall management, the recruitment for each group would be large enough to justify the setting up of a small special unit for the

purpose. The total cadre would also be large enough to provide reasonable advancement opportunities. Thus there would be no special advantages for these groups (like Hindustan Steel or Fertiliser Corporation) in common recruitment. Small enterprises, however, may find it worthwhile to set up a cooperative recruiting agency for small public sector undertakings located in a particular region. The possibility of a common cadre of technicians for such undertakings we shall discuss in a later chapter.

XI. REMUNERATION AND OTHER BENEFITS

Objectives of a Remuneration Plan

11.1 The basic objectives of the remuneration plan of an undertaking can be laid down as follows:¹

- (i) To *attract* the desired calibre of talent from among new entrants to the labour force, or from within the undertaking or from outside.
- (ii) To *retain* the talent accumulated, cultivated and developed by the undertaking.
- (iii) To *motivate* personnel to a sustained high level of performance to achieve the objectives of the enterprise.

Remuneration can consist of the following elements:

- (a) Salary
- (b) Incentive or bonus award
- (c) Contribution to provident fund, pension scheme, etc.
- (d) Fringe benefits which have a definite money value to the employee and which involve a cost to the employer, such as free use of car, free or subsidised housing, travel for self and family at company costs, personal servants on company's pay-roll, etc.

11.2 Remuneration being a cost to the enterprise, the management's approach would naturally be to keep this cost to the lowest level possible. But an enlightened management has to think in this respect not merely of short run costs but also of long run costs—and the costs have to be related to the value of present and future output. Paying unduly low salaries today may mean a saving in costs; but the future growth and efficiency of the enterprise may thereby be affected adversely. In many public undertakings, there is far too much emphasis on obtaining talent which would keep a present machine going and far too little

1. cf. Richard C. Smyth : "Executive Compensation", *Management Review*, January 1961, p. 10.

on attracting the really scarce talent that can serve the purpose of meeting the challenge of the unknown future. The remuneration offered by any organisation, especially when it is a very large and complex one as some of the major public undertakings are, should be such that at least a few first rate persons who possess this scarce capacity are attracted to it.

Should Salaries in the Public Sector be Generally Lower?

11.3 A point that is very important when we think of the salary plans of public undertakings is—is it necessary that the salaries in the public sector, especially at higher levels, should be lower than those prevalent for similar jobs in the private sector?

11.4 It is a generally accepted and well known fact that in India the income differentials between different classes of persons are too large and need to be reduced. It has been suggested that deliberate effort needs to be made by Government to “rationalise progressively scales of salaries and other types of remuneration paid to top executives, administrators, and intellectuals in all official and semi-official employment”. This rationalisation would involve the reduction of the disparity between the highest and lowest scales of official payments to a level similar to that in a country like the U.K. As a corollary of this, it has also been suggested that “Standards of remuneration and earnings at the higher levels in private modern business should be amenable to public regulation.”² While we are not dealing with the general problem of the distribution of incomes in the country, the problem whether salaries, especially at the higher levels, in the public sector should be deliberately kept at levels much lower than those that prevail for similar jobs in the private sector very much concerns us in this study. If the Government decides to adopt a policy of regulating all salaries and payments in the country, whether in the public or private sector, one of the major causes of the non-availability or migration of personnel in

2. D. R. Gadgil: *Planning and Economic Policy in India*, Poona, 1961.

public undertakings will be removed. But there seems to be no likelihood at present of the Government adopting such a policy.³ Therefore the question that we have to examine is: what should be the approach to salary policy in public sector undertakings under the present circumstances?

Highest Salaries in Administrative Services

11.5 The Second Pay Commission, after an examination of this problem in relation to Government servants, came to the conclusion that reduction in the existing standards of the highest salaries in the Public Service would not be justified. But it did not also recommend any increase in these salaries in spite of its finding that standards of remuneration in private business were much higher than in the Public Services.⁴ Among others, an important reason relevant from our point of view was the Commission's conclusion based on the evidence available to it that the standard of recruits to administrative services had been maintained at a high level in spite of the higher remuneration in private business. One advantage that Government has, however, in the case of administrative services is that the training and experience obtained by such an officer is not, except at very high levels, in demand from private business concerns. Therefore there is no possibility of migration of such personnel on a significant scale to non-Government jobs. Once they are recruited, they remain with Government.

Technical Personnel—Special Factors

11.6 On the other hand, the case of technically qualified personnel is quite different. As we have already seen, there is a shortage of experienced engineers; and though the expansion of training facilities will reduce the absolute quantitative shortage, with the continuous process of industrialisation, and the resultant setting up of new industrial units and new types of industries, the demand for engineers with some years of experience will exceed supply

3. See 9.12 of this study.

4. Report of the Second Pay Commission, *op. cit.*, pp. 76-37.

for some time to come. Therefore, unless the remuneration offered by public sector undertakings to the engineers employed by them compares favourably with the remuneration offered by private sector undertakings, public sector undertakings are likely to lose their experienced personnel. As we have seen earlier, this process has already affected some enterprises, and it will increasingly affect others, unless steps are taken to check it.

Examples From Other Countries

11.7 Public undertakings, especially when they follow civil service patterns of salary plans, are found to be at a disadvantage in recruiting and retaining competent personnel in all countries where a 'mixed' economy prevails. In Sweden, for example, the enterprises which are organised as Trading Agencies—which are somewhat similar to departmental public undertakings in India—find that their salary scales are falling behind those of private enterprise and some of them are experiencing difficulties in recruitment. That is one reason why there is an increasing preference shown in Sweden to organising public undertakings as state companies; these enjoy greater flexibility in the matter of determining salary scales.⁵ In the U.K., on the other hand, the salary policies of nationalised industries have never been closely linked to Civil Service scales. The well known instance of an executive from a business firm being borrowed for the top position in the British Railways on a very high salary illustrates this quite clearly. The approach to this problem was explained by a senior British official in the following words, "The nationalised industries are industries and not parts of the Civil Service. ... That means that they should be thought of in terms of salary, as part of the business world."⁶ In the U.S.A. also, public corporations like the T.V.A. adopt salary scales which are mainly based on the pattern prevalent in business. In

5. Douglas V. Verney: *Public Enterprise in Sweden*, Liverpool, 1959, pp. 39 and 52.

6. Evidence of Sir John Maud, then Permanent Secretary of the Ministry of Fuel and Power, before the (U.K.) Royal (Priestley) Commission on the Civil Service, 1954 (Evidence—p. 1137).

departmental undertakings and organisations, however, the Civil Service pay structure becomes applicable and the Federal Government has had to face a major difficulty regarding the availability and retention of scientific and technical personnel.⁷

Government—Largest Employer in India

11.8 When thinking about the problem in the Indian context, one other factor should be taken into account. The Government is the largest single employer of technical personnel in the country. Already in 1955, 65% of all graduate engineers and 75% of all qualified engineers⁸—graduates plus diploma-holders—were employed in the public sector. With the considerable expansion in economic activity in the public sector under the Second and Third Plans, this predominance of the public sector is likely to be maintained. According to another source of information,⁹ there was some tendency in the early period of the Second Plan (1956-58) for the proportion of engineers employed in the private sector to increase as compared to that employed in the public sector. But even then the public sector retained its predominance. Even in the two main categories of graduate engineers where private sector employment was rapidly increasing, mechanical and chemical engineers, the proportion employed in the public sector was 82% and 72% respectively before 1956 and 61% and 46% after 1956. These figures are very approximate but they are good enough for the purpose of indicating that the public sector as a whole is predominant in the market for employing qualified technical personnel.

Necessity for Concerted Policy

11.9 It is true that this includes all public authorities, both at the Centre and in the States. But the State Governments

7. See E. W. Lindveit: *Scientists in Government*, Washington, 1960; also, "Inventory of Scientists and Engineers", U.S. Civil Service Commission, Washington, 1956.

8. "Engineers in India. Number and Distribution, 1955", Planning Commission, Scientific and Manpower Division, p. 3.

9. Council of Scientific and Industrial Research, *National Register: Occupations of Scientific and Technical Personnel in India*, September 1958.

largely follow the salary pattern laid down by the Government of India. Therefore for this purpose Government possesses a somewhat monopolistic position in the market for technical manpower. Such is not the situation in other countries. In the U.S.A., for example, in 1954, the Government employed only one out of every 15 engineers. Therefore, unlike in such countries, the Government of India can exercise a leadership in setting up the pattern of salaries and benefits for such personnel. This can, however, only happen if the Government ensures that the various organisations in the public sector act in concert in the market for technical personnel and do not compete with each other. This will be ensured if there is a common recruitment agency for all public sector organisations. But if for any reasons this is not considered practicable, the same effect will be largely attained if a common pattern of remuneration is evolved for all public sector undertakings. This will mean that broadly, throughout the public sector, the same remuneration—taking all the benefits together—is paid for the same type of job, thus avoiding any ‘price competition’ by public sector undertakings in the market for technical personnel. This will have to be supplemented by an agreement for avoiding ‘poaching’ of each others’ employees by public sector organisations. If these two measures can be enforced, the public sector will be in a better position to exercise ‘leadership’ in the market for technical personnel and set the pattern of salaries which may largely be followed by the private sector.

Necessity to Attract the Best Talent

11.10 There is one difficulty in this process that needs to be mentioned. Technical personnel is not a standardised commodity; while the average talent will constitute the largest proportion, and the public sector will have no difficulty in attracting it in enough quantity at a price set by it, the small proportion of first rate talent may not be attracted to the public sector if private sector undertakings pay better remuneration. Public sector undertakings which, as we have already seen, are largely more vital for the economic growth of the country should be in a position to

attract a large proportion of the best talent. Otherwise, not only will the public sector suffer, but the rate of economic growth of the country as a whole will also be adversely affected.

11.11 The new major public sector undertakings have certain important advantages over most of their counterparts in the private sector. There is the attraction of special training facilities—here and abroad. The undertakings being new, large and expanding ones, the promotion and advancement prospects can also be an important attraction. As many of these undertakings are also adopting new techniques and machinery, this would provide a professional attraction. All these advantages need to be properly publicised and an attractive image created in the minds of young engineers about employment in public undertakings. We have already dealt with some of these problems in the preceding chapter. We shall deal with advancement and promotions in the next chapter. But what needs to be emphasised in the present context is that the best talent among technical personnel will not be automatically attracted to the public sector unless special efforts are taken for attracting it. The starting salary is no doubt important; but even more important are the prospects—material and professional—that are open to them. These are indicated by the policy regarding advancement, whether the talented person can expect rapid advancement or not, and the status, position and remuneration that the best among them can expect to occupy. At present, the impression created by public undertakings in these respects is not such as to attract the best talent.

Highest Pay in Public Undertakings

11.12 The highest pay that technical personnel can look forward to in public undertakings today is not only considerably less than that in the private sector but it is also less than the highest pay for other types of personnel employed in the public sector. Leaving aside the exceptional cases of persons specially recruited from the private sector for high level posts in undertakings like Hindustan Steel, the highest pay

that a technical man can expect to get in a public undertaking is Rs. 2750 p.m. It is true that the Government's policy is to permit only Rs. 3000 as the highest pay in Government services proper, except for the Indian Civil Service officers. But the fact remains that at a time when there are a significant number of top officers in Government earning amounts above Rs. 2750 and when officers of this type if they are appointed to a public undertaking can expect to be paid Rs. 3000 or Rs. 3500, no technical persons are given this salary. This creates a feeling that technical personnel will always play second fiddle in public undertakings. The top positions in public undertakings should in practice be open to all including technical personnel and should ordinarily carry salaries higher than those in Government services proper. (At the same time the personnel in such positions should enjoy much less security as compared to top personnel in Government. We shall discuss this point further in a later part of our study.) This will ensure that the best talent among technical persons will feel that the prospects both in terms of money and position open to them are second to none in the public sector. Taking note of the fact that the highest salary in Government now is Rs. 4000 (except in one case where it is Rs. 4500), and assuming that jobs in public undertakings will carry less security and will not carry the benefit of a non-contributory pension, it would not be unreasonable to think of Rs. 5000 as the appropriate top remuneration in public undertakings. If and when the top salaries in Government are effectively brought down to Rs. 3000 p.m., the question of appropriately reducing the top salaries in public undertakings could be reconsidered subject to the considerations of external relativity which we discuss below.

Reduction in the Highest Salaries in the Private Sector

11.13 What about the other problem—that of much higher top salaries in private undertakings? It is true that with the rates of direct taxation that prevail in India, the actual addition to salary income even with higher salaries is not very large. But, as against this, some other considerations need to be kept in mind. The prestige of high salaries in

private undertakings is sometimes put forward as an important consideration. But if the public sector as a whole has a top salary which is less than that in the private sector, we do not think that the prestige of the person occupying such a position will be any lower than that of his counterpart in a private undertaking. On the other hand, there are real benefits attached to high salaries in private concerns. Contributory provident fund and in some cases pension benefits are related to these high salaries.¹⁰ These can lead to quite a substantial form of deferred compensation; and the provident fund part of it remains tax-free. Moreover, in the private sector, there is an increasing tendency to provide various kinds of perquisites and not all of these are taxable. These also can make a substantial difference to real emoluments.

11.14 While, as we have seen, the Government does not seem to be inclined to control the salaries paid in the private sector, there are some other policies which it can use for preventing unduly high emoluments being paid by private sector undertakings to their top personnel. The fact that Government employs a very large proportion of technical personnel can be expected gradually to affect the salary policy of private undertakings. They would ordinarily not pay more than what is necessary. The Government may also exert moral pressure on the more important private undertakings to adopt a more rational policy in this regard. The powers enjoyed by Government under the Companies' Act, the Income-tax Act, etc. can also be used to some extent to prevent very high rates of real remuneration. In the case of industries where there is some kind of price control, or where protection is granted or loans are given by Government or by financial corporations under Government, Government can exert pressure to ensure a reduction in unduly high rates of remuneration. We cannot and need not go further into these problems; but it is quite clear to us that unless a sustained effort is undertaken in this direction, public undertakings will always be faced with difficulties regarding attracting and retaining the best technical talent.

• 10. See, Second Pay Commission Report, *op.cit.*, pp. 84-85.

External Relativity at Different Levels

11.15 If, as we have suggested above, Rs. 5000 p.m. is accepted as the top remuneration in public sector undertakings, the difference between public and private sector undertakings at the highest level would be much less in magnitude than it is now and to that extent the public sector would be less handicapped. The mobility of personnel, once they have reached an advanced age, and high positions, is also likely to be less. The mobility is much greater at younger ages and in junior and middle level positions. As we have seen, private sector undertakings are able to lure away the better kind of technical personnel at these levels because of the 'jump' that people can obtain through movement and also because of the higher remuneration, job for job, in large private sector undertakings. A good promotion policy will be one method of meeting this problem. A properly organised salary structure where, at various levels, external relativities are given due weight, is another.

11.16 The highest remuneration being raised to Rs. 5000 should be of help in maintaining in the public sector levels of remuneration which do not compare very unfavourably with private sector undertakings. For the reasons relating to relative mobility at different levels that we have mentioned above, the approach should be that at junior positions, the total remuneration in the public sector should be nearly equal, say 90%, of that for a similar job in the private sector; at higher levels, the proportion may gradually decline; at levels above Rs. 2000, it may substantially decline, so that at highest levels it may be about 60%. These proportions are only illustrative; but they will indicate broadly the pattern of external relativities in remuneration that we consider appropriate for public sector undertakings as a whole. We may have a slightly lower proportion even at the junior levels because of the strong position of the public sector as an employer as discussed earlier.

Uniform Salary Grades in Public Sector Undertakings

11.17 We have already mentioned in a previous section that a uniform salary policy needs to be applied to all public

sector undertakings so as to avoid 'price competition'. Our earlier discussion has also indicated that one of the important causes of mobility—or where mobility is prevented, of dissatisfaction—is the lack of uniformity of salary grades in different public sector undertakings. It is true that in many of the Western countries, such as the U.S.A., U.K. or France, no such uniformity of salaries is enforced on corporate public undertakings. But the situation in India in this respect is quite different than in these countries. The public sector in India is already playing an extremely important role in the economy. With the Industrial Policy that has been adopted, and the allocation of investments in the Third Plan, there is no doubt that in the industrial, transport and power sectors, the public sector is going to dominate. We have already shown how the public sector dominates the market for qualified technical manpower. Our conclusion, based on this fact, was that the public sector can provide a leadership in determining the salary pattern in this labour market. But this can only happen if a uniform salary pattern comes to be established for the public sector undertakings.

11.18 Of greater relevance to our problem in India, in this respect, is the experience in the U.S.S.R. From the very beginning of the Five Year Plans there, the policy has been broadly to lay down a common wage and salary pattern for the whole economy—the whole economy being in the public sector. Of course, due to various reasons, distortions in the pattern laid down have arisen from time to time.¹¹ But the policy has been to maintain a basically uniform pattern of wages and salaries in the economic system. In the last two years, with a new turn being given to the policy regarding income distribution, renewed attempts are being made to lay down a uniform basis for all salaries. The number of salary rate schedules is being reduced though because of large differences that have historically grown up between rates in different industries, complete uniformity is not being

11. See, N. A. Bulganin : *Tasks of the Further Development of Industry, Technical Progress and Better Organisation of Production*, Moscow, 1955, pp. 44-46.

enforced immediately. But the preparatory work for that is being done in the following way: "Job classification catalogues for engineers, technicians and office employees must be compiled in the next few years as a decisive basis for this work. Scientific principles of distributing the work of engineers, technicians and employees according to the degree of its complexity should be worked out in detail."¹² Instead of trying to rectify the position later, we in India might preferably try to evolve a uniform salary pattern at this early stage of the growth of our public sector.

Degree of Uniformity in Scales

11.19 By uniformity we mean that jobs requiring similar knowledge and experience and at the same level and content of work and responsibility should be paid the same rate or scale of pay. It does not obviously mean that the pay scale should be the same because of similarity of designation or level of responsibility in the organisation. The complexity of work and extent of responsibility may be quite different in similarly designated jobs according to the size of the industrial unit or sub-unit, the technical nature of the job, etc.

Distinction Between Industries

11.20 An important question suggested by Soviet practice is: should pay scales vary according to other criteria like nature of industry (basic or otherwise), the region in which the unit is situated and the efficiency of the unit?¹³ In the Soviet Union, higher rates of payment in industries which were considered to be of special significance to the national economy were brought into vogue for the purpose of attracting and retaining the best talent in these industries. This policy was considered to be "an objective necessity under conditions of shortage of labour".¹⁴ We have already pointed

12. E. Kapustin, "Some Problems of Further Improving the Organization of the Wage System", *Sotsialisticheskii Trud*, 1961, No. 4, Trans. in *Problems of Economics*, Vol. IV, No. 3, pp. 48-49.

13. For quotations about the Soviet approach to these differentiations and their criticism, see, W. W. Kulski: *The Soviet Regime*, Washington Square Press edition, 1959, pp. 247-54.

14. E. Kapustin, *op. cit.*, p. 47.

out the necessity of paying adequate remuneration in the public sector undertakings which in our country are the main supports of economic growth. On the other hand, it should be remembered that one of the basic reasons of the distortion of the wage and salary structure in the U.S.S.R. seems to have been this attempt to distinguish between jobs according to the characterisation of the industry. Our Plan is expected to be a more balanced one and we hope to develop basic industries and consumer industries simultaneously. It will not be proper therefore to permit differences in salary rates according to the nature of the industry. Of course it is quite possible, that in most of the basic industries, the size being large and the complexity of work greater, there will be a larger number of higher paid jobs than in other industries. But that is not inconsistent with uniformity of salary scales.

Regional Differences

11.21 Regional differences in salaries may be justified on the ground of the regional imbalance between demand and supply. This was the ground on which such differences were brought into practice in the U.S.S.R. In India also, we find that the salary rates for technical personnel have been generally lower in Bangalore, for example, than in other major industrial areas. The reason seems to have been that the output of qualified personnel was large in Bangalore and many of these personnel, coming as they did from the same region, preferred to get employment in Bangalore even at somewhat lower salaries. But already the situation has begun to change. Younger engineers are mobile and do not mind moving to other regions in search of better jobs. While for unskilled, semi-skilled and skilled labour, the market may be local or regional, even for highly skilled workers the relevant market is nowt ending to be wider. For engineers with degrees and diplomas, we must increasingly think in terms of a national market, unless of course the regional influences which we have described earlier become so powerful as to create artificial barriers in the way of this natural tendency.

11.22 However, there is another factor which is important in this connection. Many of the new industrial projects may be located in out of the way districts where amenities to which a technical officer is normally accustomed may not be easily available. While public sector undertakings are increasingly providing amenities like housing and educational, health and recreation facilities as a part of the setting up of a new unit, there may still be certain handicaps for persons located in such places. As compared to persons located in major cities, these officers may have to incur extra expenses for special types of education for their children; or they may have to incur special costs on transport if no really good market town exists near their place of employment. A small construction allowance which is paid only for a short period is all that is additionally given at present for persons so situated. But the answer to the problem may lie not so much in having higher pay scales at these places as in providing better amenities and special concessions to take care of these difficulties. Even in the U.S.S.R., the opinion now expressed is that "It is advisable to attract and retain workers in these branches not by paying them higher wages, but by ensuring the all-round development of these areas, by greatly extending housing construction etc."¹⁵

Different Pay Scales Based on Performance

11.23 The difference in actual performance of the undertakings should certainly influence the actual remuneration of the persons working in it, but the difference should be not in terms of pay or salary rates but by way of bonus or other such variable payments which could be in some way related to the contribution made by different categories of personnel to successful performance. We shall deal with this problem in a later section of this chapter.

Organisation for Setting up Uniform Grades

11.24 At present there is not only no uniformity in the pay scales prevalent in different undertakings but there is also

15. E. Kapustin, *op. cit.*, p. 47.

no adequate instrument for ensuring such uniformity. The only instrument that is expected to be of some use in this context is the existence of a representative of the Ministry of Finance on the boards of corporate undertakings in the public sector. As he is also generally the Financial Adviser to the Ministry concerned (or his deputy) on behalf of the Ministry of Finance (Dept. of Expenditure) he is supposed to be in a position to ensure that broad uniformities are observed in the determination of pay scales in different undertakings. But our study indicates that this has not prevented disparities in pay grades arising in different undertakings. It is obvious that if uniformity is to be ensured, and common pay patterns are to be established on a systematic basis, a more organised effort will have to be made to work out the appropriate pay grades for public sector undertakings. A special Public Enterprise Pay Research Unit may have to be created. It may be either under the Ministry of Finance or under the Cabinet Secretariat. But it should be in a position to enforce conformity to its general pay scale pattern on all the undertakings.

Main Functions of This Organisation

11.25 The main duty of this unit would be to decide on the principal pay grades for technical (and other) jobs in public undertakings and to indicate the standards for these different grades in terms of kind of work, level of responsibility, qualifications required and the demand-supply position regarding particular kinds of qualified persons. It should be left to individual undertakings to apply these standards to determine the grade applicable to particular jobs. The unit can apply various kinds of checks to ensure that the undertakings apply the standards correctly and that a broad uniformity is maintained in the application of these standards by different undertakings. It will have the right to revise classifications that it considers improper. When new jobs are being set up or an old job is being changed or for any other reason needs reclassification, the consent of the unit will have to be obtained. Broadly, the position of the unit would be similar to that of the Civil Service Commission in the U.S.A. in this respect except that the grades

will be decided by executive orders and not by statute and only the gradation of different posts will be determined by the unit; the number of posts will be entirely a matter for the management of the undertaking to decide though the unit may study this aspect from time to time and submit its findings for the consideration of the undertaking and the Government.

Flexibility of the Salary Pattern

11.26 An important advantage that will accrue from the establishment of a unit like this will be that broad standards of position classification will be uniformly laid down and there will exist a body of experts to check on their application in different undertakings. Moreover, a body like this will also be in a better position to continuously study the trends in salary patterns in private undertakings and, on the basis of such studies as well as other data on matters like trends in the demand and supply of different kinds of technical personnel, advise on the adjustments necessary in the salary pattern. One major difficulty from which departmental as well as corporate public undertakings suffer in India is the lack of flexibility in the salary plans. Generally a Pay Commission is required before major adjustments can be carried out and in the meanwhile difficulties arise regarding recruiting and retaining able persons. We have already seen how departmental undertakings like the Ordnance factories have suffered due to this lack of flexibility. Even corporate undertakings, as we have seen, are not much better off. When they are set up, they may adopt a pay structure which is good enough to attract talent; or they may classify jobs in higher grades for this purpose even though they have to adopt the old pay structure. But adjustments, essential in the light of changing circumstances, are difficult because there is no authoritative study-group which can advise the undertakings as well as the Government on these matters.

11.27 Major private undertakings carry out such surveys every few years to find out what is happening in the market for good talent. They want to make sure that broadly they are among the well-paying employers so that they do not face

a problem regarding recruiting and retaining good talent. Public undertakings have not attempted to do this on any significant scale and on a regular basis. Of course such information becomes available only on a confidential basis and largely by way of mutual exchange. It may be added that we did not succeed in getting sufficient information about private sector salary scales which would have enabled us to make full-scale comparisons between public and private sector undertakings. But we feel confident that a special unit like the one suggested will be more successful in collecting such information because it will be in a position to make available the results of its own studies in exchange for information supplied. Thus it will be in a good position to advise on adjustments which are necessary for the purpose of maintaining proper proportions in regard to external relativities for different kinds of jobs on the lines indicated by us earlier.

11.28 One objection that enterprise managements can justifiably raise to any such arrangement is that it may prove to be too rigid and adjustments which may be needed urgently by managements may take a long time for examination and approval. We hope that care will be taken to see in organising and managing such a unit that this danger, which can be very real, is avoided.

Number of Pay Grades

11.29 It is neither possible nor necessary in a study like this to go into various detailed problems of salary plans.¹⁶ A few points, however, which were specially brought out in our analysis regarding the problem of migration may be briefly discussed.

11.30 One of these problems is the number of grades and differentials between them. About the number of grades,

16. It is not necessary for us to go into the various technical methods which are used in preparing pay plans. These are described in many standard works. The following may serve as brief introductions to the techniques:

- (i) Royal Commission on the Civil Service (U.K.), *op. cit.*, Evidence, pp. 1089-90—"Salary Scheme Employed in Imperial Chemical Industries".
- (ii) "Maturity Curves and Salary Administration", *Management Record*, Vol. XXIV, No. 1, (January 1962), pp. 14-17.
- (iii) "Salary Administration for the Line Manager", *Personnel*, Jan.-Feb. 1962, pp. 26-34.

it has sometimes been said, "there should be enough grades, but not too many". As we have seen in Part II, too few grades can be a handicap in that recognition of the higher responsibility, complexity or value of different jobs becomes difficult to provide and therefore recruitment and retention become difficult. Too many grades are obviously undesirable as this only leads to confusion because the distinction between job-levels becomes blurred. The number of grades will also depend upon the total spread between the lowest job and the highest. For the type of personnel that we are concerned with in this study, the value of the lowest job will have to be the same for the same type of personnel in all public undertakings; the value of the highest job will depend upon factors like the size of the enterprise, its complexity, etc.

Ratio of Highest to Lowest Pay

11.31 One question that is generally raised as regards differentials is, what should be the ratio between the lowest and the highest payment? For the country as a whole, the Taxation Enquiry Commission had suggested¹⁷ that the maximum personal income after tax should not exceed 30 times the average family income in the country; it had also explained that this was to be attained by stages and not immediately. The highest remuneration that we have indicated as proper in public undertakings in present circumstances, viz., Rs. 5000, bears a ratio of 22:1 to the average family income (1960-61), assuming a family of five persons and after allowing for personal direct taxes.

Necessity of Higher Grades Than Exist at Present

11.32 An objection to laying down Rs. 5000 p.m. as the maximum remuneration in a public undertaking would be that instead of gradually reducing large disparities where they exist, we are suggesting increased disparities where they are at present lower. There is validity in this argument. But we have to take note of the situation as it is and try to suggest

17. Report of the Taxation Inquiry Commission, 1953-54, Vol. I, Delhi, 1955, p. 154.

a solution to the particular problem under study which is largely in keeping with the basic policies of Government. The Second Pay Commission had, in its report, discussed at length how the disparities in income in the private sector are growing and also how the number of persons with high salaries was growing in the private sector.¹⁸ We need not repeat its arguments. We may however point out that while among income-tax payers in the country as a whole, those with incomes above Rs. 30000 p.a. constituted 4.10% among persons whose principal source of income was their salary, and 2.17% among those whose only source of income was salary, in the same year, 1959-60, the proportion of persons drawing above Rs. 30000 in public undertakings constituted only 0.4% of the employees drawing Rs. 3600 p.a. and above (see Table on p. 118). Thus as compared to the salaried groups in the country as a whole, the proportion of employees in public undertakings who earn salaries above Rs. 30000 p.a. is very small. The proportions are also comparatively lower in the case of middle groups in the income-tax paying range of employees. It is necessary therefore that the salaries in public sector undertakings should be somewhat raised so as to make positions in them less unattractive from the point of view of emoluments. This will also be of some help from the point of view of attracting back to the country technically qualified persons who after completing their studies abroad tend to stay on in foreign countries.

11.33 We are suggesting later in this study that a part of the emoluments of even high paid employees should be related to some measurement of their performance. Thus the highest remuneration level that we suggest will not be quite similar to a fixed salary of Rs. 5000 p.m.

Minimum Pay for First Class Engineers

11.34 For the personnel we are concerned with in this study, our investigations and discussions in regard to public as well as private undertakings indicate that the starting pay of a first class technical graduate after he completes his

* 18. Report, *op. cit.*, pp. 81-84.

A comparison of income-tax payers (all-India) in different pay ranges with number of employees in public undertakings in similar pay ranges

undertakings in similar pay ranges

	Income Class						
	Rs. 3,001- 10,000	Rs. 10,001- 12,500	Rs. 12,501- 25,000	Rs. 25,001- 30,000	Rs. 30,001 & above	Rs. Total	
<i>Income-tax payers</i>							
(i) Principal In- come Source— Salaries	No.	2,66,405	24,362	35,466	4,317	14,454	3,45,004
	Per cent of Total	77.23	7.08	10.28	1.25	4.19	100
<i>(ii) Income from salary only</i>							
No.	2,10,127	15,924	19,209	1,996	5,495	2,52,751	
Per cent of Total	83.14	6.3	7.6	0.79	2.17	100	
<i>Employees of public undertakings (ex- cluding I.A.)</i>							
Per Month	251-751	751-1001	1001-2001	2001-2501	2501 & above	Total	
i.e.							
Per Annum	3012- 9,012	9012- 12,012	12012- 24012	24012- 30012	30012 & above		
No.	15,702	947	961	67	70	17,747	
Per cent of 3,45,004	4.55	0.27	0.28	0.02	0.02	5.14	
Per cent of 2,52,751	6.21	0.37	0.38	0.03	0.03	7.02	
Per cent of 17,747	89.6	5.3	5.4	0.39	0.4	100	

* Sources: 1. All-India Income-tax Revenue Statistics for the year 1959-60, pp. 34 & 55.

2. Census of Central Government Employees as on June 30, 1959, Appendix B.

training-cum-probation period of two or three years should be about Rs. 500 p.m. Of course there may be jobs below this level which engineering graduates who are not found to be very good may have to accept as a starting point. But in our judgment, if the public sector undertakings are to attract at least a fair proportion of first class engineering graduates, a starting salary of Rs. 500 needs to be offered to them. This will not be considered excessive when we take into account the fact, already mentioned earlier, that the starting salary in large well-known private undertakings for such persons is about Rs. 600 to 700 p.m.

Pay Differentials Necessary for Incentives ?

11.35 Another major question that is raised in this context is: how far are large differentials necessary to bring forth the best technical and managerial effort from persons employed in such jobs? We do not propose to discuss this question at length in this study. We only need to mention that in most countries income differentials seem to be accepted as one of the most important levers for getting the best out of people, especially in the field of material production. In the U.S.S.R., except for a short period after the October Revolution, wage and salary differentials have been extensively used for this purpose. Especially in the early period of industrialisation, with the demand for qualified technical manpower always outrunning supply, it was found necessary to provide substantial differentials by way of incentives to people to improve their technical knowledge, competence and performance. It is only now that the policy is gradually changing, not towards 'equalisation'—this is considered impossible to attain for a long time—but towards reducing the differentials. It is felt that with a better balance between supply and demand for manpower, and also with a greater degree of 'socialist consciousness' among people, reduced differentials would not now be harmful.¹⁹

19. See—in this connection,—E. Manevich: "The Principle of the Personnel Incentive and Certain Wage Problems in the USSR", trans. *Problems of Economics*, Vol. II, No. 1 (May 1959), pp. 20-26.

11.36 It has been said that this kind of experience is not necessarily relevant to the situation in our country. Prof. Gadgil, in a paper to which we have made a reference earlier, pleads that given proper leadership and guidance, the code of values of the *elite* can be so formed that large income differentials would not be necessary as incentives to bring forth their best efforts. "There is nothing in the Indian tradition or in the existing Indian situation to show that socially valuable or highly responsible intellectual effort has been called forth only or chiefly by high incentive payments", he says.²⁰ We are not certain that, leaving aside intellectual efforts of an academic type, intellectual effort that concentrates on problems of production will always come forth or does come forth in India today without high incentives. Such probing of the minds of high quality technical and managerial personnel as we have been able to do for our study indicates that incentives play an important role in the degree of effort that is brought forth in the field of material production. This may not be true of all persons. It is however true of a sufficiently large number to lead us to the conclusion that it would be idealistic to base our policy on the assumption that a change in the code of values of such personnel can be expected in the near future. As regards our traditional values,²¹ we are not certain that material incentives were not important at least for the functions allotted to the *Vaisya* and the *Sudra*; it is possible that the incentive for *Brahmanical* functions was intellectual eminence and spiritual salvation and that for *Kshatriya* functions was the love of power and glory. But we are now concerned about production efforts, not about purely intellectual, martial or political motivations.

Present System of Pay Grades

11.37 In all public undertakings, salary grades are fixed,

20. D.R. Gadgil, *op. cit.*, p. 22.

21. It is interesting to note that according to the author of *Arthashastra*, the proper scheme of salaries and wages was as follows: miscellaneous workers—60; artisans—120; superintendents of departments—1000; superintendents of commerce, manufactories etc.—12000; ministers—48000. (All figures relate to *panas*.)—R. Shamasastri (ed.) *Kautilya's Arthashastra* (ed. 1961), pp. 276-277.

as in Government services, with a minimum and a maximum with a time-scale of increment; in most cases there is a fixed annual increment. In some salary grades there is an 'efficiency bar'; but the proportion of cases where a person is held up at the bar is negligible. While rules permit of stoppages of increments as a punishment, this is usually related to serious misconduct and such other reasons. Efficiency of performance can be, in theory, rewarded by extra increments; but except in a few cases (like the D.V.C. in its early years), this method also is not much in use.

11.38 This system has the great merit that it is simple and therefore easy to understand and administer. Because very little is left to the discretion of any authorities, once a person is appointed and confirmed in a particular job, there is no possibility of anything unfair or unjust being done as between different persons. Employees feel secure about obtaining their increments every year and there is no possibility of nepotism, favouritism, etc. in this respect.

Demerits of Present Practice

11.39 There are certain serious demerits of this system to which we may now draw attention. As regards the range of the pay scale, the minimum and the maximum being fixed for every individual in a particular job at the same level, the fact that the value of any job (especially in the higher ranks) to a productive enterprise is to some extent variable according to the capacity of the individual to perform it, tends to be ignored. It is true that the basic value of a job has to be thought of not in terms of the particular individual who is holding it at the moment but in abstract terms. But, especially in the case of high level technical (or managerial) jobs such as we are concerned with in this study, the particular individual can make a difference in the value of the job he is holding. He can make it more or less valuable by his own initiative, drive and performance. But in our present scheme of salary administration, such individual variations are not recognised.

11.40 Fixed annual (or biennial) increments have a valid basis. Ordinarily the sheer fact that a man continues in a

particular job makes him slightly more valuable to the employer. This increase in his value is however bound to be limited; it may be high in the first few years but it will be lower later. But under the present time-scale increments, a man goes on getting annual increments whether his past performance and future potential justify his obtaining an increment or not. Moreover, a person whose performance has been indifferent, gets the same increment as a person whose performance is genuinely good. Thus an effective method of providing an incentive for better performance is lost to public undertakings because of this system of fixed annual increments.

11.41 (i) Variable maximum value for a job, and (ii) merit increments have the special advantage that they can make allowance for the intangible aspects of performance as well as the tangible ones. In this respect they are better than bonuses related to some general index of performance.²² Therefore they are especially suitable as incentives for managerial officers—whether on technical or non-technical jobs. It is true that to use these incentives, a carefully worked out method of appraisal of performance is necessary. A proper organisation for ensuring that superiors at every level are properly trained in the methods of appraisal and some common standards of appraisal are maintained have also to be built up. But this will be a small cost to pay for the incentive effect these will have on performance.

Variable Maximum Pay for a Job

11.42 It is not necessary to point out in detail how these

22. See later in this chapter the discussion on bonus payments. Soviet-type managements seem to have realised this problem for some time now; cf. : "The more complicated the work... is, the more impossible it becomes to measure its results, its standard, and its quality by means of one or two 'objective indices'... For example, while the work of the chief technologist of an enterprise affects the volume of production and must contribute to any reductions in cost which are achieved, yet the effect of his present work may not be felt for a year or so... The work of most technologists and administrative and managerial employees in responsible positions is of such a composite nature that it cannot be gauged by means of a 'thermometer' of 2-3 indices, but must rather be evaluated in a many-sided complex manner." Janos Kornai—Overcentralisation in Economic Administration, trans. John Knapp, (London, 1959), pp. 90-92.

two ideas are to be actually put into practice. Some reference has already been made to introductory material on this problem. The main points about the changed system may however be briefly mentioned.

11.43 The normal maximum value of a job should be set on the basis of the complexity and responsibility of the job when done fully and well by an experienced man. But the actual worth of any 'officer' job depends to some extent on the calibre of the man who is doing it. Therefore a range of maxima are built around this normal maximum; the range may be from 90% to 110% of the normal maximum. Of course there may be an officer who is found to be not even up to the minimum requirements of his job. In that case, special consideration will have to be given either to improving him, transferring him to another less important job, or dismissing him. Or there may be an outstanding man whose value in the job can be rated significantly above 110% of the normal. But the majority of officers would fall between these ranges. The particular maximum to which the individual will be moving through merit increments will depend on the appraisal of his abilities and qualities in the particular job. A new-comer to the job will probably have 90% of the normal job value as his personal maximum; later on he may rise in his abilities and qualities and his personal maximum will increase to any point in the given range. Sometimes a person may deteriorate and his personal maximum may have to be reduced. But ordinarily, after the first year or two, the individual's personal maximum in the job will remain stable, though a few individuals will always grow in their jobs, and thus have their personal maxima increased.

Variable Increments

11.44 Experience, useful knowledge and skill take time to acquire. The rate of increments should be such that every person should be brought to his personal maximum by the time he would be doing the job as well as he is ever likely to do it. The period required for this may be normally five to ten years, depending upon the nature of the job. But the

actual period taken by a particular individual may be shorter or longer than this according to circumstances, his previous experience and skill. A man with promotion potential will reach the maximum within the normal or even less time; another may take much longer, or may not reach there at all.

11.45 The main point about a system of variable merit increments is that an employee whose performance does not warrant consideration for an increment should not receive it. The increment should also vary according to the personal maximum of the individual and the rate at which it is considered proper that he should reach it.

Extra Increments for Continuous Good Service

11.46 Once a person has reached his personal maximum, he cannot earn any regular increments in his existing job. The incentive then for him is to obtain a promotion. Another could be to have his personal maximum increased. Another alternative for providing incentive to a man who continues to perform good service in his job but cannot be promoted would be some sort of special increment, granted every three years or so. This last method is of special use in the case of certain categories of highly specialised technical or scientific personnel in whose case, because a regular hierarchy cannot be set up or because the number of higher jobs is small, even persons with good records cannot be promoted. Another alternative way of advancing such persons is to have flexibility regarding the number of jobs at higher levels.²³ Adoption of one of these alternatives can take care of some of the difficulties of research personnel in enterprises like Hindustan Antibiotics or maintenance engineers in various enterprises that we have explained earlier in this study.

Rapid Increments at Early Age

11.47 An important point that needs emphasis from the

23. e.g. See Report of the (U.K.) Barlow Committee on Scientific Staff, paras 9 and 10 and the Government's decisions on it in 'The Scientific Civil Service' (H.M.S.O., cmd. 6679, London, 1953).

point of view of retaining good technical personnel in a situation of keen demand for it is that increments need to be rapid in the early stages of a man's career. This is necessary because it is at this stage that he is most mobile. His needs also increase rapidly at this stage of his career as he gets married and has to set up a house and so on. Therefore he is more likely to follow the urges of his financial needs and move to a better job if his remuneration increases too slowly at this stage. If he is good, and has obtained valuable experience, he is very likely to be in demand outside. These considerations should be kept in view in deciding the policy about increments as well as promotions. In public undertakings, the increments in the early stages of a young man's career seem to be slow. The old scale of Rs. 350-850 with biennial increments of Rs. 30 is still prevalent in many undertakings and this seems to create a good deal of justified dissatisfaction. One of the methods which effectively bind personnel in some private undertakings to their employers seems to be the rapid increments that they obtain at a young age. Even though the later advance is much slower, they then find it difficult to secure another employment where they could get a comparable salary before they reach middle age.

Special Payment for Unpopular Jobs

11.48 What can be called 'white-collar' technical jobs are specially preferred in India by many persons with engineering degrees. Jobs involving office work are therefore in greater demand. Jobs which require working, even as a supervisor, on the shop-floor or where direct control over production is involved, or shift-work is the rule, are disliked. We found, as mentioned earlier, some resentment among qualified engineers posted to jobs of the latter type. This resentment is obviously unjustified. One way to reduce it would be, as seems to be the general practice in many countries including the U.S.S.R., to give a production job to every engineer at the beginning of his career. Only later should a selection be made of those more suitable for specialised staff jobs like designs, industrial

engineering, etc. This will be useful also from the point of view of the engineers' own professional competence. It may also be worthwhile considering whether some extra benefit could not be given to people put on the less preferred jobs in the shape either of allowances (such as are given to workers in 'hot-shops' in steel mills) or of other benefits like additional leave. Of course, if as we suggest in the next section, a system of production or other bonuses is made applicable even to junior and middle level officer categories, officers directly on production jobs would earn substantial additions to incomes which would not be, at least in the same measure, available to those employed in staff jobs. In that case this source of dissatisfaction is bound to vanish and we may even face a situation when people would refuse to accept promotions which involve movement from a direct production job to some kind of a staff job.²⁴

Are Bonuses Necessary?

11.49 The kind of personnel that we are concerned with in this study get no bonuses in public sector undertakings. The approach that at present seems to be accepted is that a person with the kind of education and status that an officer, technical or non-technical, enjoys should always do his best, especially when he is being paid a reasonable salary. Public interest together with the prospects of promotion should provide enough incentive to him. Public officials employed in normal Government work, it is said, do their job efficiently and conscientiously without any extra payment. Why then should it be necessary to pay anything extra to a man working in a public undertaking?

11.50 While this is a plausible approach, experience in many countries and practices based upon it suggest, and it is also widely held amongst people who have experience and

24. In the Soviet Union, this problem came to be so troublesome that in recent years, to encourage production personnel to take up staff jobs, it has been decided that a supervisory job should be specially paid at a higher rate. To encourage qualified personnel to take up work such as that of a design engineer, the salaries of this category have been specially raised. See—V. Markov : "New Features in Organising the Material Stimulation of Technical Progress", trans. from *Planvoe Khoziaistro*, no. 6, 1960, in *Problems of Economics*, Feb. 1961, pp. 72-73.

knowledge about the working of business-type organisations, that remuneration related to performance pays in terms of results obtained. A good salary is no doubt useful in attracting good talent. But "people usually come to look upon their salary as compensation due to them for fulfilling the requirements of the job", it has been said, "and therefore it provides little or no inducement to put forth extra effort."²⁵ Prof. Berliner on the basis of a study of Soviet management, points out,²⁶ "The salary may be looked upon as the payment for carrying out the normal functions of office—for doing a month's work. The premium is a payment for the excellence of the work. The salary is paid for doing the job, the premium for doing it well. The increase in the ratio of premium to base salary in managerial income in recent years is evidence of the state's awareness of the relatively greater effectiveness of premiums as a goal." Moreover the close link between premiums and successful performance has the result that "premiums, like profit in the market economy, bring not only affluence but prestige". His conclusion is: "To be sure, persons who are not premium-oriented can survive and advance in the interstices of the system, like the Owenite entrepreneur in the capitalist system, but they do not swim in the main tide nor do they reflect the true temper of management."²⁷

11.51 We think that India can ignore the experience of the U.S.A. and U.S.S.R. in this respect only at her peril. Public sector undertakings are going to play a vital role in our economic growth and nothing, however untraditional, should be left undone which seems likely to improve the efficient performance of these undertakings. A recent study on the problems of industrial development in backward countries specially stresses the importance of injecting incentive techniques in the operation of public undertakings if efficiency consciousness is to be created. "Much can be done", it is said there, "by rewarding everyone connected

25. Herman W. Steinkrauss: "Motivating" in H.B. Maynard (ed.) *Top Management Handbook* (McGraw Hill, N.Y., 1960), p. 354.

26. Joseph S. Berliner: *Factory and Manager in the USSR* (Cambridge, U.S.A., 1957), p. 46.

27. *ibid.*, p. 56.

with the plant more if he does a superior job than if he does a mediocre job. Good incentive reward systems do not cost; they pay their way countless times over in improved economic results."²⁸

Basis for Bonus Payments

11.52 We need not go into the various kinds of bonuses that can be used for rewarding technical personnel at the officer levels. Broadly speaking, bonuses should be related to the efficient performance of the undertaking or part of the undertaking that is under the charge of the individual concerned. The norms for measuring performance²⁹ can be based on output, profit, cost, introduction of new technology or any combination of these. Care has to be taken, especially in a monopolistic or oligopolistic situation such as public undertakings enjoy in India, to see that norms are properly fixed. As circumstances change, the norms will have to change and the priority given to various objectives may also change. As in the case of pay grades, continuous adjustment to changing conditions will have to be ensured if bonuses are to serve effectively as incentives.³⁰ This may well be one of the tasks of the special Public Enterprise Pay Research Unit that we have suggested earlier. We understand that a report prepared by two Soviet experts on Incentive Payments in Indian Public Sector Undertakings suggests the establishment of a system of bonuses not only for workers but also for engineers and technicians. We hope the Government and the managements will take early steps for the institution of such incentives.

11.53 The system of variable increments that we discussed

28. Murray D. Bryce: *Industrial Development*, (N.Y., 1960), pp. 69-70.

29. See—H. K. Paranjape, "Measurement of Management in the Public Sector", *Indian Journal of Public Administration*, Vol. VI, No. 2, pp. 159-176.

30. For Soviet and similar experience about bonuses, the following may be found useful: D. Granick, *op. cit.*; J. S. Berliner, *op. cit.*; V. Katkoff: *Soviet Economy—1940-1965* (Baltimore, 1961); various articles in the journal *—Problems of Economics—*some of which have already been cited; Jan. M. Michal: *Central Planning in Czechoslovakia* (Stanford, 1960); Kornai, *op. cit.*; Bela A. Balassa: *Hungarian Experience in Economic Planning* (Yale, 1959).

in the earlier section may be considered as an alternative to a system of bonuses. How these two are to be combined at various levels is a matter that will require more detailed examination than is possible in this study. Broadly speaking, it could be said that bonuses should be more emphasised for incentive purposes at lower levels and variable increments at higher levels. This is because, as mentioned earlier, as we come to higher levels of jobs, the complexity of functions and responsibilities grows and therefore it becomes difficult to judge performance on the basis of any single index or even a combination of indices.

Importance of Changes in Pay

11.54 We have laid so much emphasis on the problem of pay because we think that continuance of the present policy in the public sector in this regard is likely to have dangerous consequences. Pay which is significantly lower, especially at the junior and middle level positions, will make it difficult to attract and retain the best among qualified engineers in the public sector. But when we therefore suggest that higher remunerations should be offered which will have some proper relationship with private sector salaries, this should not mean an indiscriminate offer of higher remuneration to everybody. One of the troublesome features of public undertakings, as a senior manager in one of them put it, is that no distinction is made between "a race-horse and a donkey". It is the 'race-horses' who can jump fences and migrate to the private sector and a proper scheme of incentive payments will ensure that they do not feel the necessity to so migrate.

Pension Scheme for Preventing Migration?

11.55 It has sometimes been suggested that a system of non-contributory pension benefits on retirement could be an effective way of preventing migration on the part of technical personnel in public undertakings. Leaving out of consideration the administrative problems involved in organising such a scheme for any enterprise individually, we think that when large disparities in pay or promotion

prospects exist, the fear of loss of pension may have only a marginal effect on migration. We have already mentioned that there have been notable cases of persons foregoing long periods of pensionable service for obtaining superior jobs. We may also point out that the possibility of discharging persons found to be below the mark would be very much reduced if a discharge also involved an almost complete loss of retirement benefits as happens in the case of Government servants. We would much rather prefer the provision of direct and immediate money benefits which would act as incentives for good talent to remain with the public sector and perform efficiently. The higher pay suggested by us is based on the assumption of a non-pensionable service. There should however be no objection to an enterprise undertaking or assisting in the organisation of a contributory pension scheme.

XII. PERSONNEL DEVELOPMENT, ADVANCEMENT AND MIGRATION

Importance of an Appraisal System

12.1 Proper appraisal of the existing personnel is one of the most important, but unfortunately also one of the most neglected, functions of management at all levels. Careful appraisal no doubt takes time and superiors at every level, busy as they are with constantly pressing operational problems, tend to put off this task till it cannot be postponed and then complete it in a hurry. Moreover, little effort is made as yet in public undertakings either to impress on the minds of managerial officials the importance of careful appraisal or to train them in the techniques. The appraisal forms in many undertakings are borrowed from traditional governmental forms and hardly is much thought devoted to scrutinising and improving them. Merit increments, personnel development programmes and a good policy of advancement cannot be introduced in an organisation unless the system of appraisal is improved in all these respects.¹

Why Personnel Development?

12.2 Once a proper appraisal of an individual's performance, abilities as seen on the job and potentialities is made, the next stage is to arrange for his development. The development programme may be either for the limited purpose of helping the employee to get over his particular limitations, angularities or lacunae, or it may be for the wider and more long term purpose of helping him positively to improve his abilities and develop his potentialities. Development of the employee is not only good for him; it is of value to the employer as well as to the community.² This is

1. For a brief but valuable introduction to this, see—Commission on Organisation of the Executive Branch of Government—Task Force Report on Personnel and Civil Service (U.S.A., 1955), pp. 91-93.

2. For the emphasis placed on personnel development programmes, see: Report on Personnel and Civil Service by (Hoover) Commission on Organisation of the Executive Branch of the Government (U.S.A.) (February 1955), pp. 45-51; also National Coal Board (U.K.)—Report of the (Fleck) Advisory Committee on Organisation (1955), p. 24.

particularly so in the case of technical talent which is and will remain short of requirements in our growing economy. It need not be emphasised that public sector enterprises, orientated to the objective of building up a socialist society, have even a greater responsibility to see that every employee is provided maximum assistance for development.

Facilities for Technical Training

12.3 An important aspect of the personnel development programme, especially in the case of technical personnel, will consist of training facilities for helping such personnel to improve their qualifications. At a time when there is such a shortage of qualified technical personnel as we have in India, and when the opportunities for joining proper engineering colleges and institutions as full-time students are so unequally available to different sections of the population, arrangements need to be provided on a large scale by enterprises to facilitate study and improvement of ability by their less qualified employees. As we have seen earlier, many of the new public undertakings are providing excellent facilities for the initial training of various kinds of technical personnel; but facilities of technical education for persons already employed are not as yet provided by most undertakings. The Soviet example is very useful in this respect. Various kinds of special facilities have been provided in the Soviet Union for part-time technical education. Those who do well in these courses are given special scholarships to become full-time students at a later stage of their education. As a result of this system, the number of technically qualified persons went up rapidly even in the period of the first two Soviet Five Year Plans. In other Soviet-type countries, similar policies are in vogue.³

12.4 Indian public undertakings need to do a great deal more than they are now doing in this direction. No doubt

3. See in this connection—K. Galkin: *The Training of Scientists in the Soviet Union* (Moscow, 1959), pp. 68, 77-78, 171-72; N. Spulber: *The Economics of Communist Eastern Europe* (N.Y., 1957), pp. 396-97; Bienstock, Schwarz and Yugow: *Management in Russian Industry and Agriculture* (N.Y., 1944), p. 92; D. Granick, *op. cit.*, pp. 43-44.

there are a few concerns where some facilities are provided. But this practice needs to spread more widely. The more such facilities are provided, the larger will become the supply of technical talent. Moreover, if this improvement in technical qualifications occurs as a result of facilities provided by the enterprise, the employee will feel a special loyalty to it and his improved abilities and knowledge will be available to the undertaking. Especially for the supply of qualified and experienced personnel for occupying senior supervisory and junior management positions, such programmes will be of real use to a public undertaking.

Development of Engineers in Management Skills

12.5 In addition to facilities for further learning in a person's own specialisation, an important part of the personnel development programme has to be directed towards helping him to develop administrative and managerial ability. The higher the level of a job, even on the 'technical' side, the greater the importance of these, and the less that of technical proficiency. (This would not be true of a few highly specialised jobs; we shall refer to these later in the discussion.) Providing facilities for learning the techniques and the knowledge required for operating at progressively higher levels is very important.⁴ Failure in this respect is one of the main reasons why in many organisations we find a total absence of mutual understanding between technical personnel and the so-called administrative and managerial personnel. It is interesting to note in this connection that more and more use is being made in Soviet industry of what are called 'engineer-economists', i.e., economists with training in engineering; and engineers are also being increasingly provided with facilities to learn practical economics.⁵

12.6 To explain the objectives of this aspect of personnel development we cannot do better than quoting the

4. See—J. Douglas Brown and Frederick Harrison, *op. cit.*, pp. 25-30 and 87-88.

5. See—O. Kozlova and V. Girovsky: "Training Economic Cadres for Industrial Enterprises", trans. *Problems of Economics*, Vol. I, No. 12., pp. 26-29.

following passage from the Task Force Report on Personnel and Civil Service prepared for the Hoover Commission in the U.S.A.:

"...it should be the function of the executive development program to develop administrative ability which is over and above professional, vocational or technical proficiency—the capacity to understand and direct the work of others, to accept responsibility, to exercise good judgment in making difficult decisions, and to give confidence to others in trying circumstances. In addition to developing these essentially personal qualities and perfecting the skills that make them effective, administrators need to understand the context in which they work, the larger organisation of which their unit may be a part, and its place in the Government and Society as a whole. They need to be able to dovetail the work of their organisations with that of other organisations as well as to get good team work within their own circle. They need to learn the attitudes and habits of horizontal coordination."⁶

12.7 These remarks are of special value in thinking of the development of technical personnel with very specialised education for holding progressively higher responsibilities in business undertakings.

Important Aspects of Development

12.8 We need not go into the various methods of personnel development. We would however like to make a brief reference to two points which seem to us important in our context. One is that on-the-job training and development is one of the most important tools of personnel development; and this is especially important in the case of university educated engineers who join industry. Middle-level managers under whom these young men work need to be specially asked to attend to this, because their interest and guidance can make an enormous difference to the development as well as the morale of the young engineer. The second is that a system for early identification of potentially

high talent needs to be established if development programmes are ultimately to serve the purpose of making available capable persons when they are needed by the organisation. The development of such individuals needs to be carefully planned so that they obtain the necessary training. At some levels, this may consist more of technical training in very specialised areas and functions; at others it may consist of opportunities for developing breadth of outlook. Certain key positions need to be established as training positions⁷ where such persons can obtain valuable experience and can be observed by top managers so as to judge their capabilities. The person may have to be rotated among various positions, technical and non-technical, line and staff, field and headquarters, so as to provide him with a variety of experience and an opportunity to prove his capabilities.⁸ It is specially necessary to emphasise this aspect in the case of technical officers because if they are not provided with such opportunities, they are never likely to be able to reach top positions; and potential top managerial talent is not so plentiful that we can afford to waste any good source of it. In our investigations we came across a number of technical officers holding high managerial positions in large private undertakings who explained that this was the best way to develop top management for the future. We find that not enough attention has been given to this kind of development of technical personnel in public undertakings.

Should Engineers Become Top Managers?

12.9 This brings us to the important and somewhat controversial question about the pattern of promotions for technically qualified personnel. Should the advancement of such personnel lie mainly in their own specialised line or should it lie in the whole range of top management? There is no doubt that up to the middle level positions in a production

7. See—William T. Brady—"Planned Management Development", in H. B. Maynard, *op. cit.*, p. 494.

8. See—Hoover Commission Task Force Report, *op. cit.*, pp. 70-71; also (U.K.) Report of the (Herbert) Committee of Inquiry into the Electricity Supply Industry (London, 1956), p. 86.

organisation, the main job of a person will have to be related to his technical knowledge and experience. Some element of managerial skill he will no doubt require, but he has mainly to be proficient in his technical field. At positions above this level, except for a few highly specialised jobs, managerial skill will be more and more important, though a background of technical knowledge and production experience may also be necessary. Therefore the promotion avenues for technical personnel will lie mainly within their particular field of specialisation up to the middle levels; for those who are found capable of rising to still higher positions, they will normally lie in a wider and wider area. Where exactly the dividing line can be drawn will naturally depend upon the type of technology in use in the enterprise. If it is a highly complex technology, probably mobility up to rather high levels will have to lie within the area of specialisation.

12.10 Technical people can be quite successful as top managers. Experience in the U.S.A., U.K., U.S.S.R., as well as in private sector undertakings in India proves this.⁹ We do not mean to say that a technically qualified and experienced person alone can be a good manager, nor that every such person can be one. But there are technical people who can be very successful top managers; and this opening should not be denied to them. The argument that technical talent, being scarce, should not be wasted on managerial jobs which can be as well handled by others is a specious one. A top job is a top job and naturally people aspire for it. The fact that few of the top positions in public undertakings in India have been occupied in the past by technical people is an important reason for the dissatisfaction and feeling of grievance that one finds among technical people employed in the public sector. However the position has already been changing and we have no doubt that the policy regarding future appointments will increasingly obviate these

9. See—W. Lloyd Warner and Norman Martin (ed.): *Industrial Man* (N.Y., 1959), p. 142; D. Granick: *Red Executive*, pp. 102-3; R. V. Clements:

suspicions. If a policy of executive development as indicated above is followed, technical personnel would provide one of the major sources of top managers in public undertakings.

Advancement for High Level Specialists

12.11 There may however be persons who are so capable in their particular specialised fields that it will be in the interest neither of the undertaking nor of the individual in his professional capacity that his only line of promotion should lie in an area outside his specialisation. This will be especially true of fields like designs or scientific research in industry where individual flair and talent for the job makes an enormous difference to how it is done. It may not be either possible or necessary to build up a hierarchical organisation in such departments purely for the sake of providing higher paid jobs to more competent persons. The best solution to this problem, as has already been indicated in many studies on scientific personnel,¹⁰ is to have flexibility regarding jobs in different grades so that a person can be given higher jobs in his own line as he proves to be of greater value in his specialisation. It is necessary to emphasise that in such cases it is not always necessary—it may even be quite wasteful—to insist that the higher job should necessarily carry with it some executive or managerial responsibility.

Equal Advancement Opportunities for Different Categories

12.12 The promotions policy of an enterprise should be so formulated that for equal talent, opportunities for development and advancement should as far as possible be equal, and persons starting their career in any particular line of specialised work in the undertaking should not feel that they are in a permanently handicapped position as compared to some others. As we have seen, in many undertakings, engineers who begin their career in a line which is other than the main production line in the undertaking have a feeling that

10. See—Report of the Barlow Committee (U.K.), *op. cit.*, para 10; Report of the Priestley Commission, *op. cit.*, ch. XIII; also Second Pay Commission Report, p. 158.

their chances of advancement are less as compared to those who begin their career in the main line. It is true that the number of higher jobs in the main specialisation in the undertaking is likely to be larger and therefore engineers in this line would have more advancement opportunities open to them in their own specialised branch. But other types of engineers could be provided with opportunities to develop and advance in more generalised technical and managerial jobs. If this is not attended to, they are bound to feel dissatisfied and would prefer to migrate to other undertakings. In such a situation, it may even be difficult to attract fresh recruits with enough competence for the specialised technical jobs outside the main line of work of the undertaking. This is clearly undesirable. For example, construction and maintenance are obviously as important for the long run health of the undertaking as production, and require competent if not the best talent with specialised knowledge of these.

High Rate of Advancement Essential to Prevent Migration

12.13 A high rate of promotion for the best talent is very important for maintaining good morale and providing incentive for efficient performance and development of ability. If the rate of promotion in any undertaking or for any category of personnel within an undertaking is slow, dissatisfaction and migration are bound to result. One of the reasons why new public undertakings in fields like coal mining, iron and steel, oil and fertilisers (in the case of Sindri) were able to attract competent and experienced personnel from the older, private sector, units was that these people found that their advancement opportunities in their parent enterprises were blocked. The older enterprises were either stagnant or not expanding rapidly enough while they had a number of experienced people who could handle jobs at higher levels in a competent manner. If an enterprise is to be able to retain its best qualified and experienced personnel, it should be in a position to provide rapid advancement opportunities to them.¹¹

11. cf. : "There can be good hunting (for outside pirating managements)

Advancement at Younger Age Inevitable

12.14 In a situation such as the one that we are facing in India, when the supply of engineers of different specialisations with at least a few years' operational experience is considerably short of demand, advancement at a high rate is essential to retain not only the best but also the average among them. This of course means dilution, the placement of persons in positions which they may not have the full capacity to hold and advancement more rapid than would be considered proper or desirable in more 'normal' times. But this is a price that we have to pay for attempting rapid industrialisation. Moreover, the experience in many countries seems to be that while such quick advancement may sometimes result in dilution and inefficiency, this is only temporary; a large number of persons rise up to the challenge of the advanced opportunities. The only precaution necessary is a ruthless weeding out of persons who cannot rise up to the requirements within a reasonable time.

12.15 Thus the fact that people in such scarce categories advance rapidly even when they are comparatively young, and that they advance from one level to another every two or three years, should not create apprehension or alarm. However, in the older generation of people, one sometimes finds a certain resistance to this trend. A young man rising to a position which older persons could reach only after a long period of service is something they cannot easily accept. Some of them would rather promote an older but mediocre man than a young but brilliant one. In public undertakings, one specially notices the prevalence of such attitudes. Traditions in the civil services, with their emphasis on seniority, lend further support to this approach. Finance and accounts advisers, with their civil service background, tend to relate advancement to age. They may make an exception sometimes in the case of a new recruit, coming from a private

in a company that is vulnerable on any of three counts: It is not growing fast enough to provide opportunities for its managers in the second and third echelons; it has developed more capable managers than it has room for (perhaps deliberately); or it has failed to keep its financial incentives up to date". Perrin Stryker, "The Pirates of Management", in *Management Review*, July, 1961, p. 53.

undertaking and joining at a higher level. But they are reluctant to advance anyone internally at a rapid rate.

12.16 The idea that age and seniority should weigh more than talent is normally prevalent in all traditional societies. But it has to be given up by a society which wants to bring about a technical and economic revolution. No doubt there are certain jobs where maturity and experience count a great deal; but there are many others where persons with talent can perform quite effectively even if they are not very senior or mature. A study regarding the age at which Chief Executives of large corporations in the U.S.A. attained that office shows that the proportion of those who attained such office before the age of 40 was 23.6% in 1900, 16.7% in 1925 and 11.5% in 1950; the proportion of those who obtained such office between the age of 40 and 50 was 36.3% in 1900, 42.3% in 1925 and 34.1% in 1950.¹² In the U.S.S.R. also, we find that a very large proportion of directors and other top personnel of enterprises was below 40 in age in the period of the early Five Year Plans.¹³ Thus the fact that at this stage of our economic growth, some persons, especially specialists, rise to important positions at a comparatively young age need not be considered alarming.

Correlation Between Age and Grade Not Always Possible

12.17 For all these reasons the tendency to insist on a certain rigid relationship between the age of a person and the grade that is to be given to him needs to be firmly resisted. The rate of advancement is bound to vary from individual to individual and from specialisation to specialisation. Some individuals develop at a rate much faster than others. If their advancement is slowed down as a result of such insistence on a rigid relationship between age and grade, they will move to the private sector where, in good undertakings, no such inhibitions exist about granting a higher grade to a talented young man. Similarly, there

12. Warner and Martin, *op. cit.*, p. 146.

13. See D. Granick, *op. cit.*, p. 42; also 'Red Executive' p. 137; Bien-

are certain kinds of technical specialisations which are specially scarce in the country at the moment. Therefore persons who possess knowledge and experience of these specialised jobs are and will be greatly in demand. If the public sector undertakings refuse to follow the logical results of this scarcity, the best talent in such specialisations is not likely to be available to them. In certain types of jobs like designing, a special flair, aptitude and innate capacity is required and these are relatively scarce in any economy. Enterprises which need such talent must pay the 'scarcity rent' of such talent.

Special Development and Advancement for Potential Top Managers

12.18 Actually, a good plan for personnel development and advancement many times requires that young men with good potentials are picked out (preferably without their knowledge) and developed and advanced rapidly so that they are in a position to occupy important jobs as and when necessary.¹⁴ If their advancement is not planned and carried out at a proper speed, there may arise gaps, because of wastage or expansion, which it is not easy to fill by outside recruitment at high levels. Some positions, as mentioned earlier, may have to be treated as training positions, and people who have passed a certain age may not be given these positions even if they are fit for them, because they may not be able to develop further and be available for filling up still higher positions at the time these fall vacant. Moreover, a talented man gets soured if he finds that he does not get advancement rapidly enough so as to develop his potentialities and he would either leave such an organisation or, if he continues, he may lose initiative and even begin to deteriorate. This is the commonly accepted approach in well managed business undertakings and public undertakings would be in danger of losing good talent if they do not adopt it.¹⁵ Accelerated promotions for junior but talented persons would no doubt create

14. cf. Herbert Committee Report, *op. cit.*, p. 86.

15. *ibid.*

problems regarding the morale of those who are superseded. But the existence of these somewhat awkward situations is much less important than retaining, developing and having available when required persons who are really capable.

Necessity of a 'Vertical' Service Pyramid up to Certain Levels

12.19 An important factor that affects the rate of advancement is the number of positions open to a particular category of personnel at different levels of the hierarchy. In the case of engineering graduates and diploma-holders, it is necessary that practically everyone among them should be sure of reaching at least middle level positions within ten to fifteen years. In money terms, this would mean, in the case of graduates, that starting in a job which carries a remuneration of about Rs. 500 p.m., they should be in a position to reach a job which carries a remuneration of about Rs. 1500 within this period, provided they are found to be of average ability. This would require that the service pyramid should be 'vertical' up to this level.¹⁶ Otherwise it will not be possible to keep them satisfied and they will tend to migrate. Observing proper proportions between different kinds of recruitment, as mentioned earlier, is very important in this context. Even if a graduate mechanical engineer, for example, may have to begin his career as an assistant foreman, their number should have almost a vertical proportion to the number at the higher level. The remaining posts of assistant foremen should be filled from among persons rising up from lower levels.

Promotions vs. Open Competition

12.20 Many engineers have a feeling of grievance that while in the case of administrative personnel in Government, once a person enters service, he advances within the civil service without being asked to face open competition at every stage of advancement, in the case of specialised technical personnel, open competition is frequently resorted to, especially if the persons at the next lower level have occupied that position only for a few years.

16. cf. Second Pay Commission Report, *op. cit.*, pp. 157-58.

Rapid advancement because of shortage of personnel and expansion of the organisation, it is argued, has taken place in administrative services also. At an age when in former times a person would have been only a deputy secretary, he is now a joint secretary; but this has not led to the introduction of open competition. Why should this be done only in the case of technical officers? That is, in short, the substance of the grievance.

12.21 We are not concerned in this study with civil service administrative personnel and we shall not therefore discuss the question whether open competition in their case would have been desirable or practicable. But in the case of technical (or for that matter any) personnel in production organisations, we would certainly not think it desirable to introduce the service or cadre concept as it is understood and practised in our Government services. We have advocated in this study a basically different approach to personnel in public undertakings, with less emphasis than is placed in the civil service on fairness to the employee and more on the requirements of efficient production. Personnel development, accelerated promotions, bonuses or variable increments—all these have their root in this different approach. Guaranteed or automatic promotions are not consistent with this approach. As a *via media*, some undertakings adopt a policy of reserving a certain proportion of posts at every level for promotions from within; the remaining are filled by open competition, though even there, internal candidates who do not get promotions from the other quota can apply. This may be a useful device where promotions have to be given mainly on the basis of seniority; because at least a few outstanding candidates, either from inside or outside, can get in through 'open competition'. But this is not essentially a sound method. Promotions should go to the persons most capable of contributing to the efficient handling of the job or who are potential top managers. It should not be considered so much a reward for past service or current performance (variable increments and bonuses can take care of these) as a recognition of the further capability

of the man.

12.22 An organisation which has a well-conceived plan of personnel development and advancement provides the best guarantee of promotions to capable employees. Every good management is aware that securing qualified and experienced persons who will exactly suit the requirements of a job in the particular undertaking is not easy. They will therefore make an attempt to develop personnel from within and if a person develops satisfactorily, he will be preferred to a largely unknown outsider when an opening is available. But if there are no persons within who are found to be good enough, the management will be justified in advertising the position. Persons already employed can also participate in the competition; and if they are found to be the best amongst those who are available, they will be appointed, unless the management finds them to be so unsuitable that they decide to advertise the job again at a higher remuneration so as to attract better candidates. A rigid policy of promotions from within can no doubt lead to a feeling of security among employees and thus evoke their loyalty. But these advantages may be obtained at the high cost of inefficient and less able personnel being put in key positions in the undertaking. Too much inbreeding is not good either biologically or organisationally.

Outside Recruitment at Higher Levels

12.23 Of course if an old and well-established undertaking has to go to the market for too many of its high level jobs, it would indicate that there is something wrong with the organisation; personnel development is not being properly attended to. Moreover, such organisations, always in a state of crisis to fill up important positions, are a danger to others as they would not mind offering a very large incentive to lure away men from other organisations.

12.24 In the case of new undertakings, there is obviously no alternative to direct recruitment at various levels—high and low. Such recruitment will be least disturbing to existing undertakings if it is planned well in advance and agreed upon between the older undertakings and the new

ones. If new public sector units are set up under an overall management which they share with older public undertakings in the same or similar fields, planning for the requirements of personnel of the new undertaking will be a function of the common overall management. It can then be so organised that it does not disturb the operation of the older units.

12.25 When a new unit has to be on its own for recruitment of its basic staff complements, it has to offer good enough salaries to attract people from older undertakings. One reason why new public undertakings have not been able in some cases to attract good and experienced talent from the private sector has been that the pay structure has been kept unduly low.¹⁷ Sometimes, when it is found impossible on the usual salary to attract persons to fill up key positions and no one from inside is found suitable, the management is compelled to agree to paying a high salary to attract a suitable person. This can affect the morale of the employees adversely. A much better way would be, as suggested earlier, to have a salary structure which is not too far removed from that prevalent for such personnel among the best private firms. A low salary structure has led to overreliance on personnel from Government services for filling up positions at various levels in the new public undertakings. While some of them have proved their worth, others, from the point of view of their efficiency, are costly even at their lower salaries.

12.26 On the other hand, we also came across instances where persons from private undertakings, because they were earning high salaries there, were taken up not only at higher starting salaries but even in higher grades as compared to similarly qualified and experienced persons coming from the public sector. Sometimes, a higher paid

17. cf. : "Industries which pay higher salaries, as a group, appear willing to reach 'outside' the company for executive talent rather than promote an inadequate man, and seniority usually carries less weight in promotional decisions. By contrast, lower compensation industries have 100% promotions from within, emphasis on seniority and job security." Arch Patton, "What is an Executive Worth?", *Harvard Business Review*, March-April 1961, pp. 68-69.

man from the private sector is even preferred to an equally qualified and experienced but lower-paid man from the public sector—even from within the enterprise. These are obviously lapses and do not represent a policy. But in the light of the information given to us, it seems necessary to emphasise that qualifications and experience, and not previous salary, should provide the basis of selecting a man for a particular grade. Within a given grade, a higher starting salary may have to be paid to attract a man if he is badly needed. But if a proper system of appraisal and variable maxima and increments is followed as suggested earlier, another person taken on a lower starting salary because he comes from the public sector will not be permanently handicapped. In a system of fixed automatic increments, however, he may suffer from this handicap for a long time.

Preferences in Promotions

12.27 The dissatisfaction and demoralisation arising from favouritism—true or alleged—based on regional, caste and personal considerations has already been referred to earlier. Another similar source of dissatisfaction may be briefly touched upon here. The policy that has been adopted in many public undertakings of giving preference in employment up to certain levels to people from the particular region in which the undertaking is located, and in all employment to scheduled castes and tribes, has considerable political, economic and social justification. As long as persons from these preferred categories satisfy certain minimum qualification and other requirements, they should no doubt receive some preference at the normal points of entry, mainly at the lowest or juniormost positions in any category, as for example, in the recruitment of various types of apprentices. That should, however, be the end of the preference. Their advancement should depend entirely upon merit and they should enjoy no preference in advancement. All persons, once employed, should be equal in the opportunities open to them. Otherwise not only will the undertaking suffer as a result of less capable people being promoted; there will also be a loss of morale and capable persons will prefer to migrate elsewhere. It

is our impression that at least in some public undertakings this is already taking place.¹⁸

Avoidance of Too Much Security

12.28 Rewards for good performance and ability have to be combined with ruthlessness in handling cases of poor performance and misplaced promotions if an organisation engaged in production has to improve its efficiency. This twin approach is no doubt somewhat strange to a hitherto traditional society such as ours. But there is no escaping it if we want to improve the efficiency of our industrial undertakings. This approach needs to be especially emphasised in the case of public undertakings because with the long tradition of 'security' in our Government services¹⁹ and the possibility of having to justify any punishments in the face of legislative questioning, there is a tendency in these towards undue softness in the handling of personnel. We are not advocating against fairness and a humane approach as such. But it is necessary in our opinion that there should be a clear understanding that a person who does not by his work justify holding a particular job will not continue to hold it just because, maybe due to a mistake in judgment, he was once appointed to it. Demotion should swiftly follow continuously poor performance. A man who had once shown good promise and was therefore brought in the main line of advancement to the top should be as clearly shunted off if he shows by his record on the job that he is not that good. Inefficiency need not lead to dismissal; but it should certainly lead to demotion. This may mean that the man quits; but that is all to the good. There can be such a thing as too much

18. Preference for war-veterans in the U.S. Civil Service provides a good illustration of a somewhat similar problem. See—Hoover Commission—Task Force Report, *op. cit.*, pp. 110-15.

19. The troubles that result from too much security were specially noticeable to us in the case of departmental undertakings. Managements find it very difficult even to refuse promotion to an incapable but senior man because of the difficulty in justifying their judgment. Demotion or dismissals are of course almost out of question. In the case of National Instruments, which is now a corporate undertaking, many of the old employees continue to enjoy the status of permanent Government servants and management finds it very difficult to improve their efficiency or even to enforce discipline.

security and this can create "a lasting tenure among half-hearted men who have lost their sense of striving".²⁰ In such organisations people tend to be too tolerant of the limitations and deficiencies not only of their subordinates but of their own. All are biased toward a 'don't rock the boat' attitude.

12.29 This approach of cutting away dead wood is especially important in organisations that employ highly qualified scientists and engineers. The rot that affects a few, if permitted to live in the organisation undisturbed, can spread and may affect the morale and attitude of others. It is especially necessary to remove persons who are showing signs of tiredness if not worse from positions where they can control and influence the attitudes and activities of growing talent.²¹

Non-material Incentives and Morale

12.30 It is generally accepted that non-material incentives are also important in attracting good talent, retaining it and getting the best out of it. We have already indicated earlier the factors that affect the morale of technical talent adversely. The problems stated there suggest their own remedies. Briefly, what is needed is an atmosphere in which the creative scientist or engineer feels that his talent and ability are recognised, that any attempt at improving his ability and performance will be encouraged and that if he puts in good work, it will be appreciated, recognised and suitably rewarded.

12.31 Material and non-material incentives many times go together. Promotion not only adds to income; it also indicates recognition of performance and potential and provides an opportunity for more important work. There are also many other ways of granting recognition to good work that have not even been attempted as yet in the public sector

20. Jerome M. Rostow, *op. cit.*, p. 33.

21. The ruthless attitude in Soviet management practice towards failure is well-known. It may be mentioned however that, unlike what is generally thought, except in cases of political victimisation, demotion to humble jobs is the more common punishment. See—D. Granick, *op. cit.*, pp. 188-92; also Bienstock, Schwarz and Yugow, *op. cit.*, p. 92.

undertakings. Soviet experience has a great deal to teach us in this respect.²²

12.32 'Indoctrination' is a term that many of us view in an unfavourable light. But in order to build up good morale, loyalty and understanding about the aims of the organisation, indoctrination is essential. This is an accepted approach not only in the U.S.S.R. but also in modern administrative and management thinking in the U.S.A.²³ Because of their public character and public interest oriented objectives, public undertakings can be in a much better position to use indoctrination for evoking the loyalty and enthusiasm of young professional talent. But in the training programmes for technical personnel that are current in many public undertakings, hardly any attention has been paid to this. This needs to be corrected.

Vital Importance of Personnel Management

12.33 If the various improvements that we have suggested in respect of recruitment, initial training, pay administration, personnel appraisal, development and advancement are to be properly implemented, public undertakings will be required to build up good personnel departments. The personnel department has sometimes been considered merely as a new name for the traditional establishment section; in other cases, labour relations and problems have dominated its working. It is high time that the importance of recruiting, training and building up the human resources of the organisation is understood by the top managements of public undertakings. We already see some signs of change. Some undertakings are now building up properly organised personnel departments; in Hindustan Steel, for example, a full-time director has been recently appointed to look after personnel matters.

12.34 It is also necessary to emphasise that personnel management is a highly skilled and specialised job and persons with considerable experience of handling such

22. See—Bienstock, Schwarz and Yugow, *op. cit.*, pp. 96-103.

23. See, e.g., Hoover Commission Report on 'Personnel and Civil Service, *op. cit.*, p. 48.

matters, specialised knowledge of the theory and techniques involved, and a great deal of imagination and tact are required for this work. Tact is especially important because in any well organised management, the personnel department is essentially a staff agency and its role is to train, guide and assist line management in better personnel practices. From what we have seen, we are not sure that sufficient attention has been given to the proper recruitment and development of personnel officers in our public undertakings.

XIII. ORGANISATIONAL MEASURES TO PREVENT MIGRATION

All Migration Not Harmful

13.1 We have already stated earlier that all migration of personnel is not harmful. It becomes so only when it takes place on a large scale and in an unregulated and unplanned manner. Otherwise migration is useful for the healthy functioning and growth of the economy. All policies relating to this problem, whether of the Government or of the individual undertakings, must be firmly based on the acceptance of this approach. Unfortunately, in Government and generally in the public sector, with the long tradition of a life-time career in the public service, there is a tendency to frown upon all migration. The non-contributory pension in Government service, the whole benefit of which had to be given up till recently if a person left the service mid-way is essentially based upon this approach. However, a certain change in policy in this respect is now apparent. The Government of India has recently decided that a Government servant who leaves Government service for joining a corporate undertaking in the public sector can do so without a complete loss of his retirement benefits. An amount equal to what would have been his accumulated contributory provident fund, if he had been employed on that basis, is now credited to his provident fund account in the public undertaking that he joins.¹

13.2 This is a move in the right direction. The approach that movement within what can broadly be called the public sector is not necessarily to be discouraged should form the basis of all thinking about this problem.

Migration From Old to New Units

13.3 New undertakings are being rapidly set up in the country as a part of our drive towards industrialisation. If

1. O. M. no. F2 (33)—EVA/60, dated November 10, 1960, Government of India, Ministry of Finance, Department of Expenditure.

these are to be successfully organised and operated, they will have to obtain a core of experienced technical personnel from the older undertakings who have such personnel with them. Older undertakings no doubt will have to make a special effort in order to spare a part of their experienced personnel without undergoing a loss in their own efficiency. But it needs to be understood that this is a responsibility that they have to bear in the national interest. There is a natural tendency on their part to say that they cannot spare people; but they must resist it or where they do not, they should be directed to do so. Some dilution of the qualifications and experience laid down for persons holding jobs at different levels is inevitable in the present stage of our industrial growth. But this dilution should be equitably shared by the old with the new undertakings. New undertakings of course should arrange their training and development programmes in such a way that they do not have to take away a very large number from older undertakings. At the same time 'stockpiling' of talent by older undertakings should not be permitted. Some of the undertakings in the public sector have not been very willing to spare their personnel. This should not be permitted. Moreover, as a measure of genuine cooperation, older undertakings should make available not only their unwanted personnel; at least a few persons of really good talent should be made available to the newer undertakings as they will form the basic core of their organisation. We were told that in the case of some of the agreed transfers of personnel from the old to the new undertakings, this has not happened.

Reduction in Demand for Technical Personnel

13.4 To reduce the imbalance between supply and demand which is the basic cause of 'flight', it is essential to ensure that scarce technical personnel are not used, especially at lower and middle levels, for jobs which other kinds of personnel whose supply is not scarce can do almost equally well. One finds some such wrong use of technical personnel especially in large private undertakings. It may be worthwhile to appeal to and advise the private sector to desist from this practice. In public undertakings also this happens in the

case of some of the old undertakings. A reference has been made above to the *ex-cadre* posts to which engineers at middle levels in the Railways are appointed. This has no doubt been useful in the past for providing better advancement opportunities to railway engineers; but this is a waste of scarce talent. We have advocated earlier that technical officers should stand an equal chance with others in advancement to top positions in the management of the undertaking. But this does not imply their use even at middle levels for non-technical positions merely so as to provide them with advancement opportunities of a stopgap character. A much better approach, in cases where the number of middle-grade posts in the technical side is so small that enough advancement opportunities are not available to young technical officers in their own line, would be to permit such officers to go to other public undertakings which are in need of such personnel for technical jobs.

13.5 Another point that needs to be mentioned is that one of the persistent complaints of technical personnel in public undertakings is that they have to spend a great deal of their time and energy on administrative matters. While some amount of administrative work is inescapable at the level of an officer-job, this could be minimised by providing adequate administrative assistance. This will ensure that a greater proportion of the time of technically qualified personnel is spent on technical work and to that extent the number of technical officers required can be reduced.

Migration Control Through Job Priorities?

13.6 One suggestion that has sometimes been put forward to reduce the troublesome effects of migration is to categorise jobs according to a standard of priority in relation to national goals of economic development and to permit unrestricted movement only from low priority to high priority jobs. This is, in abstract, an attractive suggestion. But we do not think that its implementation would be practicable in our present political, economic and administrative conditions. For one thing, it will require a detailed classification

of individual jobs which would be difficult. A simpler approach, adopted in the U.S.S.R., was to decide priorities in terms of industries—'basic' industries getting priority in the allocation of all resources, including technical personnel. As we have stated earlier, we do not think that this approach is likely to be acceptable or feasible in our system. If every case of transfer is to be approved by some administrative agency, it will give rise to various problems which would be difficult to solve. While our goal has to be to ensure that scarce personnel is so distributed that all sectors of the economy get their essential share, and especially the growth-oriented sectors get some priority, this needs to be achieved less through regulation and direction and more through inducements. The pay grades, advancement opportunities and other benefits should be so fixed that better talent flows to the industries that contribute more to the growth potential or other vital needs of the economy. That is one reason why we deprecate the maintenance of salary grades in the public sector which are significantly lower than those in the private sector.

13.7 We may also point out that there is no reason why the emoluments and other benefits should be kept at lower levels in departmental undertakings than in other public undertakings. If service in departmental undertakings carries non-contributory pension benefits, allowance can certainly be made for these in deciding on the pay scales there. But otherwise the pay grades, advancement, etc. in all public undertakings should be such that they provide an attraction for good technical talent. The undertakings which have suffered the most through 'flight of technical personnel' are undertakings which have not revised their pay grades and job structures to suit present conditions of supply and demand. Instead of improving these, they try to prevent migration by refusing to forward applications, by putting pressure on other public or private undertakings not to employ personnel who leave their service and by suggesting to Government various drastic measures to curb the 'flight' of their personnel. These methods have not been very effective and are not likely to be effective

by themselves. Moreover, public policy should also care for the rights of the individual. If he is likely to improve his prospects significantly through migration, it would be quite unfair and unjust to stand in his way. If it is felt that the job that he is doing is very valuable, the remuneration for the job should reflect that value. He will then have no inducement to migrate.

Migration Between Public and Private Sectors

13.8 Encouraging migration is not in the long-term interest of any large undertaking, whether in the private sector or the public sector. As we have seen earlier, private undertakings also seem to have been faced by the problem of migration, though not many have been affected too adversely up to now. As industrial growth will take place in the future through expansion in both the sectors, it is important for the efficient operation of both that large-scale 'pirating' should not be practised by either type of undertakings.

13.9 Where a new undertaking is being set up in either sector, it would be desirable for Government to insist upon a plan for recruitment and training for essential technical personnel being submitted for scrutiny. Preparation of such a plan and its implementation should be made a condition for the grant of a licence. Where a significant number of highly qualified and experienced personnel are going to be required, Government may insist upon a negotiated agreement with other large undertakings in the same or broadly related fields regarding the transfer of such personnel. The good offices of Government as well as the major organisations of private sector undertakings could be used for this purpose. These steps are especially important in the case of new undertakings because it is these undertakings, requiring as they do the recruitment of a large number of experienced personnel, that create difficult situations of migration.

13.10 While such a policy could take care of large new undertakings, it may be difficult to enforce such pre-planning regarding recruitment and training by comparatively smaller

units. On the other hand, while individually these units may not create much of a problem as they would be recruiting only a small number of highly qualified and experienced personnel, collectively they may also create a difficult situation. For example, it is expected that small foundries and rerolling mills will expand significantly in the next decade. This may well create considerable demand for persons with experience of foundry or rolling mills work in the large steel units. The only solution to this problem lies in large enterprises undertaking special programmes of training for persons in such lines so that replacement of lost personnel does not prove very difficult. The expected pattern of industrial development as indicated in the Plan could provide some guidance in these matters to the undertakings. It should also be possible for the Planning Commission, the Manpower Directorate and the Development Wing to provide guidance about the future trends in the demand for different kinds of technical personnel.

13.11 As we have seen, one of the reasons for the migration of personnel from public to private sector undertakings, can be large disparities in pay and other benefits. The suggestions which we have made about pay grades, increments, bonuses and advancement opportunities will, if accepted, reduce the disparity that exists today between the better paying private sector undertakings and public sector undertakings. We have also suggested that Government should use the various legal and moral pressures at its command to persuade the private sector to adopt a more rational pattern of pay. If for public sector undertakings the Government prepares a rational pay structure, through the organisation of a special research unit as suggested above, there is no reason why the private sector should not broadly follow the same pattern. Maybe the latter would still feel that it should pay slightly more to counteract the advantage that Government-owned undertakings have. But as long as the disparity is small, it would not affect the recruitment and retention of good quality personnel in public sector undertakings. If, however, it is found that good example, persuasion and moral

pattern even in the case of large private undertakings, the Government will be forced either to think in terms of more direct control of the pay pattern in the private sector, or to accept the logic of the situation in a mixed economy and revise the pay pattern in public undertakings as and when necessary to keep it in proper relationship with that in large private undertakings.

Proposal for a Central Technical Service

13.12 One of the suggestions that has been put forward from time to time for the purpose of providing a solution to the problems regarding technical personnel in public undertakings is the creation of some sort of a common Central Technical Service. This proposal is supported on many grounds. It is said that such a service with the emoluments, virtually guaranteed promotions and status that it will enjoy will attract the best technical talent. The creation of such a service, it is felt, may also automatically solve the problem of disparities of grades in different undertakings. 'Poaching' of each other's personnel by different units in the public sector would also stop. The controlling authority of the service will be in a position to deploy its officers in such a way that the difficulties that are at present faced by new public undertakings in meeting their essential requirements of experienced personnel would be significantly reduced. Such a service, it is also claimed, may help better training, job rotation and development and provide wider promotion opportunities to the best talent. We found that among senior engineers in the public sector there is considerable support for this proposal, mainly on the ground that technical officers should have an All-India Service on par with the Indian Administrative Service.

13.13 In the Indian administrative tradition, the idea of constituting a new cadre for manning new jobs that are coming up in the public service fits in very well. But we do not think that the problem of recruiting and retaining the best technical talent for public undertakings would be solved in a very effective way through the constitution of

such a cadre or service. Firstly, the service would consist of persons with not only basically distinct specialised qualifications (civil, mechanical, electrical, telecommunications and other specialised and sub-specialised aspects of engineering) but who would, on appointment to particular units, become even further specialised in their knowledge and experience. It has been said that "Common qualifications, a common gradation list, and interchangeability of appointments held by its members, are among the requisites of an organised service."² A service for technical officers of all public undertakings would satisfy none of these criteria. The specialised groups in the service cannot be merged together or their officers interchanged. Except for some staff or top management functions, persons with experience of and specialisation in one industry cannot be normally transferred to another. Thus promotions will have largely to lie not only within the particular specialisation but also within the same industry. It is true that for top level posts, interchangeability may be possible—but then for these posts, not only technical officers but also accounting officers, Management Pool officers, etc. will all be considered together. The advantages and disadvantages of common recruitment we have already discussed. As suggested by us, a common pay pattern can be established without the creation of such a service. Moreover, the flexibility in the methods of pay grades, increments, bonuses, etc. that is so valuable for providing incentives for better performance could not easily be provided in a Government service.

13.14 The most important argument, however, against any such common service is that the management of the undertaking will not feel sufficiently responsible for its role in securing and building up an adequate and competent technical officer group. The responsibility for recruitment, training, development and advancement will be not that of the management of the undertaking but of some controlling authority in the Government of India. Advance planning, recruitment, training and development

of personnel are so vital to the successful operation of an undertaking that a management which is not responsible for the former can hardly be held accountable for the latter. This proposal would have been, on balance, of advantage if the public sector had consisted of a few undertakings. But with the continuous expansion of the public sector, it will not be possible for one common agency to deal effectively with the technical personnel in all the undertakings. The important tasks of picking out the best talent, planning their careers, rotating them among different positions, testing their abilities at various stages,—all these can best be handled by individual undertakings rather than by Government.³ Most of the managements of public undertakings are against the idea of such a common service. We do not therefore think that the constitution of such a service would prove to be of very great value in meeting the problem under study.

Common Pool or Other Cooperative Arrangements—Design and Construction Engineers

13.15 There are, however, certain problems to which some kind of a common or cooperative solution must be provided by public sector undertakings. One is the problem of construction personnel. This concerns not only civil but also mechanical and electrical engineers engaged on construction. There is also the problem of engineers specialising in factory designs. Some of the former, as we have seen, can be absorbed as maintenance engineers. But it is neither possible nor desirable that all should be so absorbed; because this would mean that the specialised knowledge and experience that they may acquire would be wasted and when other similar construction work has to be undertaken new engineers would have to be trained *de novo* in this respect. Engineers who know factory designing are so few in India that their talent and experience should obviously not be wasted. It also needs to be remembered that the lack

3. We understand that the attempt made by a large managing agency house to organise a common management service has come up against the difficulty that managements of the individual units take the approach that if they develop certain personnel, they will keep them.

of persons with knowledge and experience in designing and construction of plants has created the necessity for us to obtain large scale foreign collaboration for the setting up of all our major new plants. This adds enormously to costs, as a foreign engineer easily costs us eight to ten times as much as an Indian, and even then we cannot be certain of being able to go ahead with the project according to our requirements. A reference has already been made earlier to the loss of the talent that was built up in the D.V.C. and at Bhilai. It is also important to remember that a team of design and construction engineers who together can work effectively and speedily cannot be built up quickly. Therefore if a completely new team is to be built up every time, it involves loss of time. Moreover, uncertainty of future employment leads to migration of construction engineers.

Design and Construction Units in Multi-unit Undertakings

13.16 Our conclusion in this respect is that designing and construction teams need to be built up, maintained and used on some permanent footing. One way of doing this is for the large group-organisations in the public sector such as Hindustan Steel, Fertiliser Corporation, etc. to build up such teams for the design and construction of new projects in their own fields. Already the Fertiliser Corporation is helping in the designing of Rourkela Fertiliser Project even though the latter is under a separate management. Hindustan Steel can build up a design and construction unit which can move from one new steel plant to another. It is true that our planning of projects is still defective and there are a number of difficulties to be overcome. The problem arises therefore that the tapering off in the work on one project may not always coincide with the beginning of work on a new one. But we should not take a strictly short-term finance view and discharge or absorb in other kinds of work engineers who have specialised in designs and construction. Some work connected with their own specialisation should be found for them. This will save a great deal of time and resources in the long run.

Design and Construction Units in Ministries

13.17 An alternative approach would be to build up in the public sector as a whole specialised units for designs and construction in particular fields. This may be necessary if it is found that an individual undertaking is not likely to have enough continuous work for it to build up its own separate designs and construction organisation. As regards construction of certain types, this approach is already accepted in the setting up of the National Projects Construction Corporation. Unfortunately this organisation has not yet built up strong enough roots, partly because it also suffers from the same defects like insecurity for its personnel to overcome which was one of the reasons for its being set up. But if properly organised, it should be possible for a few undertakings cooperatively to set up such a construction organisation; or it can be set up by a Ministry if it has a number of small unit under it. Similarly, for factory designs, a special unit can be organised to build up specialised personnel and to provide service to new projects. This could be in some respects similar to the Central Water and Power Commission.

Reabsorption of Construction Engineers

13.18 This type of common designs or construction units will take care of the high level specialised engineers. Persons who are not so specialised and who are not at very high levels of jobs, and who cannot be absorbed in the maintenance work of the project, will have to be absorbed elsewhere. Uncertainty regarding future employment, as we have seen, creates a problem in their case also and large-scale sporadic migrations occur. The only way to prevent this difficulty is that a guarantee of absorption in a job equivalent to what they are holding should be given to them by the Government. With the enormous amount of construction work that is going on in the public sector all over the country, with proper organisation it should not be difficult to reabsorb them without any significant loss by way of payment for idle time. Reabsorption will firstly have to be attempted in broadly the same region. If there is a

coordinating committee of public undertakings in a particular region, such as there is at Bangalore, this could be one of its functions. The construction of new projects in the region could be so planned that the tapering off of one could coincide with the beginning of another. Alternatively, a register of qualified persons who would become surplus could be maintained in the controlling Ministry and they could be absorbed as and when available in the new projects under that Ministry. Such planned transfers of surplus engineers with experience can save a great deal of time and resources that have otherwise to be wasted in calling for applications, interviewing candidates, etc. Moreover, engineers with experience of construction will be available to the new projects. The cost of transfer will no doubt have to be borne but this cost will be small in relation to the total benefit obtained. In all such cases, persons who are so transferred should be able to enjoy the benefits of 'continuous' service as per our suggestions in a later part of this chapter.

Technical Talent for Small Units

13.19 Small units in the public sector such as Hindustan Cables or National Instruments have a problem regarding attracting and retaining quality technicians that arises essentially from their small size. Because of the small number of higher level jobs that they have, the advancement opportunities are limited and therefore good engineers do not like to join them. One method of getting over this difficulty is to make these units parts of large groups of similar undertakings.⁴ Alternatively, all such small units under one Ministry⁵ could set up a special coordinating agency for the purpose of recruitment and training of technical personnel; they could also coordinate their advancement policies so that there would be wider scope for the advancement of the better talent in them. To some extent, even this would not always satisfy the needs of all their developing personnel.

4. See—H. K. Paranjape: "State Enterprises: Coordination and Control", *Indian Journal of Public Administration*, Vol. VII, No. 4, pp. 528-35.

5. The recent (April 1962) reorganisation of ministries should make all this much easier. See—*ibid.*, pp. 535-39.

These should be permitted to transfer to other public undertakings.

Use of Officers Deputed From Government Services

13.20 To some extent, the problem of providing good and experienced personnel to new units in the public sector can be met by making available such personnel from regular Government services on deputation. Hindustan Cables, Indian Telephone Industries and the recently set up Hindustan Teleprinters have all benefited by obtaining experienced engineers on deputation from the Posts and Telegraphs Department. Chittaranjan and Perambur Works have also benefited from being able to draw upon Railway engineering services for their needs. The arrangement was specially beneficial in the early stages of these enterprises as they did not have to face the difficulty about securing the services of experienced engineers. Even now the interchange of officers is of some use both to the production organisations and the service departments. Some of the best officers from the large railway and telegraphs organisations can be brought to these production units; and when they return to other jobs in their parent organisations they are richer for the experience and therefore the latter also benefit. However, as we have already explained, these arrangements suffer from certain handicaps. In some public undertakings, it has become almost a tradition that top positions are always occupied by persons on deputation from some Government services. This is not good for the morale of the technical officers in the undertaking. Work in production organisations is different from that in service organisations and especially so at technical management levels; if officers who obtain valuable experience in these organisations find that they cannot get advancement to higher positions, they are bound to feel disgruntled and so would tend to migrate. We observed signs of such difficulties in some of these organisations and we think that if special efforts are not made to provide better pay and promotion prospects to officers in the production organisations there may be danger of losing the good technical talent that is being built up in them.

Some Migration Inevitable

13.21 With the adoption of the various measures that we have suggested in this study, the tendency towards migration of technical personnel from one public undertaking to another should decline considerably. The only reasons then that will induce technical officers to move, other than personal reasons, will be the possibility that they are likely to be surplus and are unwilling to accept the new posting that is suggested to them or that they are likely to improve their prospects significantly by migrating.

13.22 However good the policy regarding personnel development and advancement that is adopted, there are bound to be individuals who feel that they are likely to do better if they can try their luck in other organisations. This feeling may be entirely unjustified. But not permitting a man to apply at all to other public undertakings not unnaturally leads to a feeling of being kept down. In the case of many persons it may be found that even if they apply for higher posts in other undertakings, they are not selected. When they have experienced this, they will learn to live with the organisation in which they are working. But if the opportunity to apply is completely denied to them, they will go on nurturing a grievance and the enterprise in which they are employed will never be able to get good work out of them.

13.23 On the other hand, there are bound to be genuine cases of people whose advancement is blocked. This may be due to their being considered unsuitable for promotion, at the moment or permanently; or it may be due to the fact that the enterprise does not have enough openings for all the people who deserve a promotion. The rate of promotion is bound to vary from individual to individual, from industry to industry and also from branch to branch within the industry. For example, in a coal mining undertaking, the advancement opportunities for mining engineers may remain better than those for other categories of engineers in spite of attempts to improve the avenues open to the latter. In such cases, it is only proper that the person should be permitted to try his luck in other undertakings.

This is not only good for the individual but, as we have explained earlier, good for the community.

Rules of Conduct for Undertakings

13.24 To ensure that this movement should take place in an orderly way and with mutual understanding between different undertakings, certain rules of conduct in this matter need to be observed. We have already referred to some rules that have been approved by the Government and which all public sector organisations have been advised to follow.⁶ These rules largely fit in with the approach that we are suggesting. Unfortunately they are not always followed. Some of them, like the one about negotiations or informal understandings, are not easy to enforce; they will work only if a certain self-discipline is observed by all the undertakings. We hope that with the adoption of the various measures that we have suggested, the temptation to break these rules will not be very strong.

Forwarding of Applications

13.25 The rule about forwarding applications is at present not put into practice, in letter and in spirit, by many undertakings. We have already pointed out our reasons for thinking that refusal to forward applications is not likely to have any useful results. If a good man is prevented from applying openly to a public undertaking, in spite of being blocked in his own undertaking, the net result, if all public undertakings genuinely observe the rules against 'poaching', will be that he will take the first opportunity to go to a private undertaking. This is what is already happening to a certain extent today. Competent officers from public sector undertakings migrate to private undertakings; those from private undertakings migrate to public undertakings, many times without applying through their employers. Thus the purpose of not forwarding applications is not served, especially in the case of good, competent and professionally known

6. See (3.6) and (3.7) above; also—Government of India, Ministry of Home Affairs (Directorate of Manpower), O.M. No. 15/4/60-MP., dated October 5, 1960.

employees. The policy of not forwarding applications that is followed by some undertakings therefore needs to be modified. The general limit of one application a year—or some such limit—is obviously necessary because otherwise forwarding of applications may become a nuisance.

Discourage Horizontal Movement

13.26 In order to prevent undue migration, we would however like to suggest two exceptions to this rule about forwarding applications. As indicated earlier, the main reason why we consider it proper that employees should be permitted, if they wish, to try their luck for other jobs in the public sector is that if they are not getting good enough advancement opportunities in their own undertaking, such attempt on their part is justified and if they are found to be suitable for a higher level job, such movement will be beneficial to the economy. A corollary of this approach is that horizontal movement, *i.e.* movement to a job at broadly the same level in another public undertaking is generally not likely to be beneficial to the economy. If common pay grades are adopted, it would not be difficult to decide whether a particular movement is a horizontal one or a vertical one. The only lure which a horizontal movement can have is through the grant by the other undertaking of a few extra increments. This should not be ordinarily permitted; no application for a post at the same level should be forwarded except for personal reasons and, in any case, no undertaking should employ a person coming from another public undertaking, at the same level but on a higher salary.

13.27 The only exception to this prevention of horizontal movement would be in the case of a transfer arranged between two undertakings because of the special need for personnel in an undertaking. For example, a new undertaking may require to obtain experienced personnel from another undertaking to work on jobs at the same level, at least to begin with. If it comes to an agreement with another undertaking so that the latter agrees to transfer a few of its experienced employees, extra increments may have to be given as

an inducement to the employees to accept such a transfer. Alternatively, an older undertaking may make available to a new undertaking a few experienced persons on deputation terms for short periods of time. Except for such cases, horizontal movement should be discouraged by insisting that no higher starting salary should be offered to an employee moving to a similar level job in another undertaking.

Forwarding of Applications During Certain Stages of Career

13.28 When an engineering graduate is first appointed to a job, for the first two years or so, he is learning more than contributing to the functioning of the enterprise. It is only after that time that the enterprise really begins to get some real benefit from his services. It would therefore be only proper for the enterprise to insist on his serving them for at least five years after his first appointment. The enterprise may be justified therefore in refusing to forward any applications during this period. Similarly when an employee has been promoted to a new higher level job, it would not be reasonable to expect that he should be permitted to apply for or, on resignation, be immediately appointed to a job at a still higher level in another public undertaking at least until two or three years have elapsed from the time of his promotion. Otherwise a person can use his promotion as a bargaining counter for obtaining a still higher job in another public undertaking.

13.29 Of course this should not mean that the parent undertaking should wait till an employee gets an offer of a higher job from another undertaking and then promote him. Promotions should take place as a part of a general policy of advancement and not to ensure the retention of an employee who obtains an offer of a higher job. We have come across instances where an employee's application for a higher job was forwarded to another undertaking, but when the other undertaking selected him for the job, the parent undertaking offered him a promotion. Such procedure leads to a waste of time and resources of the other undertaking and is unfair to it. It is also bad for the morale of employees in the parent undertaking because an impression is created

that obtaining offers of higher jobs from other undertakings is an effective way of obtaining promotions. If the parent enterprise is already considering an employee for promotion, it would be much better to explain this to him when he wants to apply elsewhere so that he may decide not to apply.

'Approved' Migration

13.30 If these rules are adopted by all public sector undertakings, the problem of migration will be solved in a way that is fair to the employee and also beneficial to the undertaking and the economy as a whole. Fair distribution of talent among different undertakings, old and new, large and small, will be largely ensured. Once voluntary migration on a fair basis seems possible, enterprises who cannot offer very good advancement opportunities either because of their size or because of their need at higher levels for certain kinds of specialists being less than for others, will not find it so difficult to attract good talent.

13.31 When an employee of one public undertaking moves to another with the consent of the former, this should be treated as 'approved' migration. To provide some encouragement to personnel to stay within the public sector, in cases of 'approved' migration, the employee should be recompensed for the expenses of movement, and he should also be able to get the benefit of 'continuous' service for purposes of leave and retirement benefits. This can be easily done by making generally acceptable arrangements regarding the financial liabilities involved.

Handicaps Suffered by Public Sector Employees

13.32 One general observation that we want to make is that in making appointments and in fixation of pay, public sector employees are sometimes put at a position of disadvantage *vis-a-vis* private sector employees. As we have already mentioned, the latter at present are better paid than the former. In making new appointments and fixing starting salaries, it seems that the salary in previous employment is given undue weightage. Engineers who first

join private undertakings and then try to move public undertakings are therefore put in an advantageous position. This is a very natural error which arises from the mistaken assumption that the worth of a man is properly indicated by his salary. In reality this is not so because of the imperfection in the labour market. We think it necessary to draw special attention to it because it seems to be creating an impression that it is much better to join the public sector *via* the private sector. We do not think this is desirable.

13.33 A disadvantage from which Government employees moving to jobs in corporate public undertakings sometimes suffer is that if they are sent on deputation, they are not permitted to receive the pay which they are entitled to on the basis of the job for which they are selected; they are only permitted to obtain their substantive pay in Government service plus a deputation allowance which is generally 20% of this pay. Recently the Government of India has issued orders providing an option to the employee to decide whether he would prefer to draw (i) pay in the scale sanctioned for the post to which he is being posted on deputation, or (ii) his basic pay in Government plus the deputation allowance. However, in cases where the minimum pay of the new post is substantially higher than (ii) above, the actual pay of the deputationist is to be fixed at a level below the minimum pay of the post.⁷ A similar handicap, placed in the way of retiring Government employees who join public sector undertakings, is that they are not permitted a salary higher than what they draw in Government service at retirement and the pension due to them from Government is deducted from this to fix their pay. Such handicaps also lead to Government employees preferring to move to jobs in the private sector, if they can secure them. This is clearly not desirable. While, as we have said earlier, the remuneration in the public sector should be such that good talent from private undertakings can also be drawn to it when necessary for higher jobs, it is clearly improper that the talent already available in the public sector should be so handicapped in the terms offered

7. O.M. No. P. 10(24)—E. III/60, dated May 4, 1961, Government of India, Ministry of Finance, Department of Expenditure.

to it that it should prefer private sector employment to further public sector employment.

Concluding Observations

13.34 Our conclusion in regard to the extent of migration of personnel is that it has not yet reached such an overall magnitude for the public sector as a whole as to justify the use of term 'flight'. However, certain undertakings have already suffered from a 'flight' and our analysis indicates that there are potential factors in the present situation which are likely in future to lead to a problem of larger magnitude for the public sector as a whole. It is necessary to adopt such policies now, when the problem is still small in magnitude, as to prevent it from becoming more troublesome and intractable in the future. The problem of initially attracting the best technical talent is also closely connected with the problem of the retention of such talent.

13.35 The suggestions that we have put forward are neither very original nor, we hope, revolutionary. Our approach has been to understand the implications of the basic political, economic and social structure in the country and the goals that we have adopted. Certain conclusions regarding policies logically follow from these. The basic fact in our economic situation is the existence of a mixed economy though the Government enjoys certain legal and moral powers to influence the policies and practices of the private sector. In such an economy, market forces are bound to be important even though the magnitude and direction of the forces can be modified to some extent by Government both because of its legal and moral powers and also because it enjoys, to some extent, a monopolistic position. We have attempted to provide an outline of an integrated policy taking all these factors into account. It should be noted that the different suggestions put forward are parts of an integrated approach. Our expectation is that the adoption of this policy would help to meet the problem in advance. We also feel confident that the approach suggested here will not be found to be inconsistent with other policies that might have to be

adopted for ensuring better performance by public sector undertakings.

13.36 With the limitations of the data that we could collect, and the time and resources at our disposal, we have thought it fit to confine ourselves to examining the existing situation in broad terms, and to putting forward an outline of policy for meeting the problem. If, in principle, the Government accepts this approach, detailed measures will have to be worked out through studies much more comprehensive than this one. If this study is found to be useful from the point of view of providing a basis for such policy-making and more comprehensive studies, we shall consider our efforts to have been amply rewarded.

XIV. SUMMARY OF CONCLUSIONS

1. All migration of personnel from one undertaking to another is not harmful. Only movements on a very large scale can be termed 'flight' and be considered harmful (1.1-1.4). Non-availability of required personnel is also an important problem (1.5-1.6).
2. Examination of the situation in regard to important public undertakings (2.1-2.18) shows that 'flight' is not a general phenomenon as yet in the public sector as a whole; older undertakings are affected more than newer ones; departmental undertakings more than corporate ones. Certain categories of technical personnel are specially affected (2.19-2.20).
3. There has been some planned 'migration' as in the case of the steel industry (3.1); but in other industries, there has been unplanned movement (3.2-3.3.). In the public sector, in addition to some planned movement of personnel, policies have been laid down to control unplanned migration (3.4-3.7).
4. The general imbalance between demand and supply in the case of qualified engineers, and specially the imbalance in the case of engineers with some years' operational experience or with certain kinds of specialised experience, have specially affected migration (4.1-4.3). Regional imbalance (4.4) and Indianisation of higher level personnel in foreign firms (4.5) have also affected it. Planned recruitment and training have been undertaken by many public undertakings and this has helped to prevent migration (4.6); but where this has not been done, unplanned migration has taken place (4.7-4.8). Grouping of similar public sector units under one common management can be of considerable use in ensuring an orderly programme of personnel deployment (4.9).
5. Lack of security in service has been an important cause of migration. This has been especially true of construction

engineers (5.1-5.3). The practice of making appointments on a temporary basis (5.4) also leads to migration.

6. In the public sector itself, scales of pay prescribed for similar posts vary and thus help create a tendency towards 'flight'. For example apprentice stipends vary (6.3). Pay scales in older units are lower than in newer units (6.4-6.5). In some public sector undertakings, corporate as well as departmental, pay scales are lower than in others due to some adventitious circumstances (6.6-6.9). Even lower pay scales may not lead to migration if the personnel is largely trained and promoted within the industry (6.10).

The salary policy regarding Government services affects the salary scales in the public sector (6.11-6.12) and these then compare very unfavourably with salary scales and other benefits in the private sector (6.13-6.17). The comparative security of service in the public sector is not a very effective compensation for significantly lower salaries (6.18), and the other advantages of administrative services do not apply in the case of service in public sector undertakings (6.19-6.20). Similar designations are sometimes—but not always—deceptive (6.21); but different pay scales for similarly designated posts create dissatisfaction and a tendency towards migration (6.22).

7. Opportunities for advancement significantly affect the continuance of good personnel in an undertaking (7.1). New and rapidly expanding organisations are in a better position in this respect than old ones (7.2-7.4). Within an undertaking, advancement opportunities may vary from department to department (7.5-7.6). When advancement is slow, migration tends to occur (7.7).

In the public sector, seniority in service tends to be given greater weight in promotions as compared to the private sector (7.8-7.9). At present, dilution in the quality of personnel at different levels is inevitable; but the implications of this are not always understood in public sector undertakings and their employees in such cases suffer certain special handicaps as compared to prospective recruits from private sector undertakings (7.10). Migration is specially attractive

because of the possibility of 'jumps'—rapid improvement in positions (7.11-7.12). Public undertakings tend to lose good employees because of these factors (7.13-7.14).

Lack of personnel development programmes create special difficulties (7.15). Recruitment of large number of engineers of the same age-group for new enterprises (7.16) and the lack of promotion avenues beyond a certain limit to certain specialised engineers (7.17) are other factors that help the tendency towards migration.

8. The morale of employees can have a significant effect on migration. The public image of state undertakings is sometimes not very favourable (8.2-8.3). In new public undertakings, because of the use of new techniques and equipment, job-satisfaction is high (8.4); but, as against this, certain features of their organisation and procedure lead to dissatisfaction and resentment among technical personnel (8.5-8.7). Fair treatment is supposed to be an important factor in favour of employees in public undertakings (8.8); but in recent years, there are many complaints which indicate that this is not always so (8.9-8.10). 'Human relations' seem to be well established in some public undertakings; but in others, even very important ones, one finds a failure of 'communication' and resultant disaffection and resentment (8.13-8.16).

9. 'Flight of Personnel' is potentially a threatening problem in India (9.1-9.2). 'Vertical' movement is likely to be beneficial both to the individual and to the community; 'horizontal' movement may benefit the individual but not the community, except in special cases (9.3-9.5). Under a planned system, priorities can be established in terms of industries and particular functions in industries for the allocation of scarce technical personnel (9.6-9.9). Broadly speaking, public sector projects would fall in the high priority category (9.10).

In the light of these considerations, certain policy objectives can be laid down (9.11). These are:

(a) Reduction and prevention of unplanned, large-scale, 'horizontal' movement.

(b) Reduction and prevention of too frequent 'vertical' movement.

(c) Ensuring adequate supply of technical personnel in high priority functions and industries.

(d) Increasing the supply of personnel in shortage.

The special limitations imposed by our political and economic structure have to be recognised (9.12) when we think of the instruments for the implementation of this policy. The special characteristics of the engineering profession have also to be taken into account (9.13-9.16), especially the fact that all such manpower is an appreciating asset.

10. Recruitment in proper proportions of persons with engineering degrees, diplomas and lower qualifications is essential if proper opportunities for the exercise of the knowledge acquired and for advancement are to be provided (10.1-10.3). Persons with less formal qualifications, but practically trained internally, are more likely to remain satisfied in lower and middle supervisory positions (10.4).

Advance planning of personnel requirements and recruitment and training arrangements for meeting them are essential (10.5). Regular recruitment is necessary so as to maintain a proper age-composition of personnel (10.6). In a situation where there is keen competition for securing best talent, an aggressive policy of recruitment is necessary (10.8-10.10). Selection methods have to be improved, with greater stress than now on the assessment of the personal qualities of the candidate (10.11) and with a considerable reduction in the time taken for selection (10.12).

Good arrangements for post-entry training are an attractive feature of new public undertakings but care has to be taken about certain aspects like sending candidates for training abroad and providing formal training if possible only after an initial period of actual work (10.13-10.17).

Small-sized public undertakings face special difficulties in attracting good quality engineers (10.18). Common recruitment of technical personnel for all public sector undertakings is sometimes suggested. But, on balance, it is not

desirable to do this. Cooperative recruitment by a few undertakings may however be useful (10.19-10.21).

11. The basic objectives of the remuneration plan of an undertaking have to be to attract and retain good quality personnel and to motivate them towards good performance (11.1). Long-term considerations require that the salaries offered should be good enough to attract potentially capable personnel (11.12).

Government policy at present is that salaries in the private sector cannot be regulated. Unlike the administrative officers of Government, technical personnel in public undertakings, especially the best ones among them, will be in demand from the private sector at almost every level (11.3-11.6). Public undertakings which follow civil service salary patterns are found to be at a disadvantage in many countries (11.7-11.8). It is true that in India, unlike in most other countries, Government is the largest employer of technical personnel and can therefore exercise a leadership in salary determination (11.8-11.9). But personnel not being a 'standardised' commodity, lower pay and prospects can result in recruitment of other than the best talent (11.10-11.11). The normal highest pay in public undertakings is at present Rs. 2750. This should be raised to something like Rs. 5000 (11.12). Leadership, combined with moral persuasion and pressure, will have to be used to prevent far higher emoluments being paid in the private sector (11.13-11.14). The lowest salaries in the public sector undertakings for graduate engineers must be at least about 90% of those in good private sector undertakings; the proportion may progressively decline at higher levels, and at the highest level it may be about 60% (11.15-11.16).

It is necessary that in the public sector undertakings, jobs requiring similar knowledge and experience and at the same level of work and responsibility should be paid at the same rate (11.17-11.19). Differences as between different industries as such (11.20) or between different regions (11.21) are not justified, though special benefits may have to be provided for personnel who have to work in out of the way localities (11.22). To ensure such uniformity, a

Public Enterprise Pay Research Unit should be created (11.24). The Unit should decide the pay grades and indicate the standards to be used in applying these grades to individual posts.

The actual application should be left to individual undertakings subject to a general check by the Unit (11.25). Uniform gradation based on expert studies made by the Unit will ensure proper internal and external relativities. It is however necessary that the Unit should function in a business-like manner (11.26-11.28).

There should be an adequate number of pay grades (11.29-11.30). The number of high-salaried personnel is proportionately low in the public sector. Therefore raising the highest remuneration to Rs. 5000 or so and proportionately raising other grades of remuneration cannot be considered unreasonable (11.31-11.33). The minimum pay for a good engineering graduate on first appointment will have to be about Rs. 500 (11.34).

Monetary incentives and differentials seem to be necessary, in the present situation, for attracting, retaining and getting the best work out of good quality technical personnel (11.35-11.36). This approach involves that the present system of pay grades with time-scale increments should be replaced by a system where the maximum value of a job should vary—within certain limits—according to the capacity of the individual (11.37-11.45). Where an individual reaches his job maximum and stays there for long, periodical special increments may be given to him for good service (11.46). In view of the imbalance between demand and supply of good engineers, it seems necessary that increments in pay should be more rapid in the early years of service than is the case at present (11.47). Unpopular jobs like those on the shop-floor or construction work should be specially compensated in some way (11.48).

For persons engaged in production work, bonuses related to some measure of performance may provide a useful incentive and it is not desirable to ignore this possibility in the case of public undertakings in India (11.49-11.51). The

system of bonuses will however have to be carefully worked out and kept flexible (11.52). Variable increments will be better as incentives at higher levels and bonuses at lower levels (11.53). Changes in salary policy are very important to prevent 'flight' from public to private sector undertakings (11.54). Non-contributory pensions, while preventing migration in some cases, would not be, on balance, useful (11.55).

12. A good system of personnel appraisal is very important for personnel development and advancement; this is lacking in most public undertakings (12.1). Personnel development is important not only to an employee but to the enterprise as well as to the community (12.2). Facilities for technical training need to be provided not only for new recruits but also for employees who wish to advance by way of acquiring more skill and knowledge (12.3-12.4). Engineers need to learn managerial skills and facilities need to be provided for this (12.5-12.7). Early identification and careful development of potentially capable talent needs to be properly attended to (12.8).

Advancement for technically qualified personnel will have to be within their own specialised field up to the middle level and in a wider area including top management above it (12.9-12.10). However, for persons specially qualified in highly specialised fields it should be possible to advance to very high positions in terms of remuneration and status without having to give up their own fields (12.11). For equal talent, advancement opportunities should be equal, irrespective of the specialised line in which an individual begins his career (12.12).

A high rate of advancement is essential if the best talent is to be attracted and retained by public sector undertakings (12.13). In the present circumstances, advancement is bound to be more rapid than in the past and there should be no hesitation in advancing brilliant persons even at comparatively younger ages (12.14-12.16). Any attempt at necessarily correlating age and grade is likely to lead to the loss of talented and highly specialised and scarce personnel (12.17-12.18).

12.18). To ensure adequate advancement opportunities for qualified technical personnel of average ability, the number of posts should be so fixed that every such person has a fair chance of rising up to the middle management level at the end of his career (12.19).

Promotions should not be guaranteed automatically through the introduction of a 'cadre' or 'service' approach. If suitable persons are not available within an organisation, recruitment from the open market should be considered quite proper (12.20-12.22). Frequently having to go to the outside market should be considered as an indication of poor personnel development in the case of old undertakings (12.23). New undertakings should preferably obtain their senior personnel through planned and agreed transfers from older undertakings (12.24). When they have to resort to the open market, care has to be taken to see that competitively satisfactory salaries are offered and selection is done carefully (12.25-12.26). While regional preferences or preference to scheduled castes may have some justification in initial recruitment, the practice adopted in some undertakings of such preferences being shown in promotions is undesirable (12.27).

Too much security in service needs to be avoided. Demotion should swiftly follow continuously poor performance (12.28-12.29). Maintenance of good morale through the use of non-material incentives is very important in preventing migration (12.30-12.32). If these policies are to be effectively carried out, personnel management needs to be given more attention than at present in public undertakings (12.33-12.34).

13. Policy should be based on a clear acceptance of the idea that migration is not only not always harmful but that some migration is also essential in a rapidly growing economy (13.1-13.2). Personnel in scarcity needs to be equitably shared between old and new undertakings (13.3). Technical personnel should not be wasted, at the junior and middle levels, in jobs that others can do equally well (13.4). Adequate provision of administrative assistance would save the time of qualified engineers and thus help reduce the demand for them (13.5).

Control of migration through the establishment of priorities in terms of jobs is not practicable (13.6). Keeping emoluments and prospects in certain undertakings unduly low, and trying to control migration through administrative measures, is undesirable (13.7).

When a new undertaking is being set up, Government should insist upon its submitting a plan of recruitment and training of required personnel. To prevent 'pirating', agreed transfers of experienced senior personnel between older and newer undertakings should be encouraged. Submission of such a plan should be a condition for the grant of a licence (13.8-13.9). This may not solve the problem of possible 'pirating' by small concerns. In that case, undertakings will have to organise special programmes of training and development to provide replacements for possible losses (13.10). To prevent continuous migration and competitive bidding up of rates of remuneration, once remuneration plans of public undertakings are rationalised, Government should take steps to persuade private undertakings to keep in line with the broad policy laid down (13.11).

The creation of a common Technical Service, while attractive from some points of view, is on balance not desirable (13.12-13.14). However, personnel pools and other cooperative arrangements may be useful in the case of particular types of personnel (e.g. construction engineers) (13.15). Common design and construction units could be organised for broadly similar undertakings (13.16-13.17). Special provision will have to be made for the reabsorption of construction engineers without their suffering any loss as a result of movement from one project to another (13.18). Small public sector undertakings may organise some co-ordinating machinery for their recruitment, training and advancement policies (13.19). Officers deputed from Government services may satisfy the need of new enterprises for experienced personnel, but care will have to be taken to see that this does not permanently block the chances of employees of the enterprise (13.20).

In spite of such measures, some individuals may want to try for opportunities in other undertakings and the

possibility of improving their prospects through migration should not be denied to them (13.21-13.23). To ensure that such movements take place in an orderly way, some rules of conduct need to be observed by all public undertakings. They are (in addition to rules already indicated by Government):

- (a) Applications for posts in other public undertakings should be forwarded subject to the following limitations:
 - (i) Not more than one application a year will be permitted.
 - (ii) Application for posts at the same or similar level will not be permitted except for personal reasons.
 - (iii) Applications will not ordinarily be forwarded within five years of the initial appointment of a graduate engineer and within three years of his promotion or appointment to a higher post.
- (b) If an employee is being considered for promotion, he should be informed about it if he wishes to apply elsewhere.
- (c) No undertaking will employ an employee of another public undertaking in the same grade as he had in the original undertaking but at a higher starting salary. The only exception to this will be when an employee is being made available to another public undertaking by agreement (13.25-13.29).

Migration, which takes place on observance of the rules indicated here, should be treated as 'approved' migration and this should carry with it rights of 'continuous' service (13.30-13.31). Certain rules, practices and procedures that are current at present provide handicaps in the way of the continuance of public sector employees in the public sector. These need to be removed. (13.32-13.33).

POSTSCRIPT

Though it is a year since the study was completed and the Report submitted to Government, its publication without any change or modification seems to be justified because the conditions described in the Report remain substantially unchanged. Some of the data received since the completion of the Report support the main conclusions that the problem of 'flight', while not as yet alarming in magnitude, is significant in character and that as a public enterprise gets stabilised, it faces the problem more intensively. The fears expressed in the Report about Hindustan Steel are substantiated by the fact that in the years 1960 and 1961, Bhilai lost 86 technically qualified persons, Rourkela, 56 and Durgapur, 39.

For some time after the declaration of the Emergency it was not clear whether the country will have to prepare for a hot and immediate war or for a long period of preparedness and cold war. It now seems as if the emphasis has to be on the latter. The principal effect of this on the problem studied here will be that as there will have to be even a larger programme of development, and especially industrial development, the demand for technical personnel will increase more rapidly than earlier envisaged. An important factor that would ease the situation to some extent is that the programmes for increasing the capacity of technical training institutes are progressing satisfactorily and it is now expected that at the fresh graduate level, an overall balance between requirements and supply will be reached within a few years. However, the shortage of particular categories, especially of those where highly specialised talent and experience are required, will continue for some years to come. As suggested in the Report, accelerated personnel development will have to be undertaken to meet this shortage.

The nature of the problem arising out of the disparities in emoluments in the public and private sectors

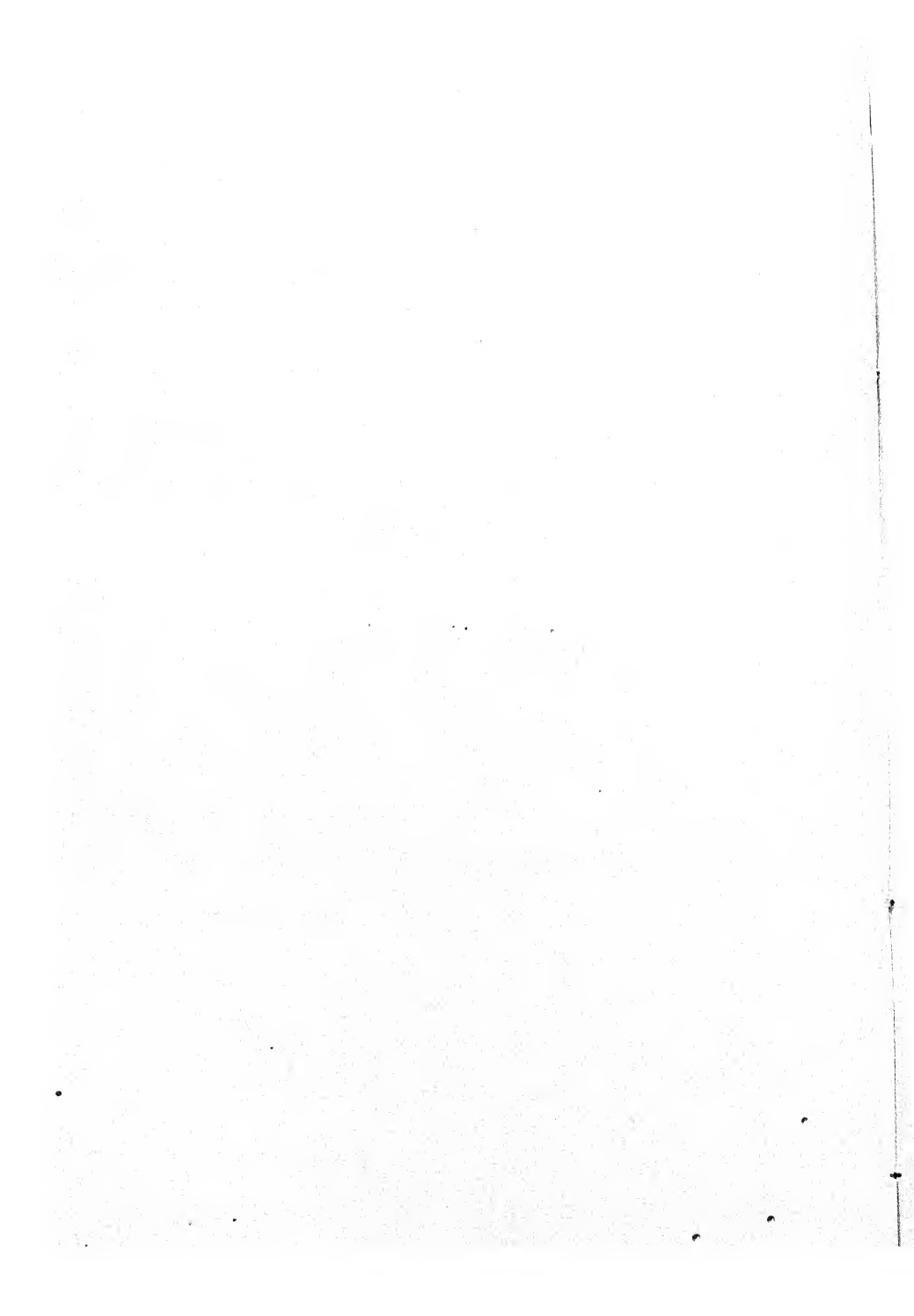
may undergo some modification as a result of the recent change in company taxation under which, for the purpose of computing the taxable income of the company, a limit of Rs. 60000 has been put on the deductible expenditure on account of salaries and perquisites paid to an employee. While this does not amount to a ceiling on the emoluments that can be paid to a salaried employee, it does provide a certain disincentive regarding paying more than this amount. There are a number of loopholes through which the effects of this provision can be defeated. How the remuneration plans of private sector companies get affected by this new provision will have to be watched for some time before one can confidently assume that this measure will be useful to prevent 'flight' from the public sector. The fact that high level engineering personnel have the option of taking to self-employment of one kind or another also cannot be ignored. The main conclusion reached in the Report in this respect does not therefore require any modification. Public sector enterprises cannot afford the luxury of paying substantially lower emoluments than those paid for comparable jobs by large private sector concerns. To the extent that the above-mentioned measure or any other kinds of pressure and persuasion result in lowering down private sector emoluments, the public sector can also follow the lead. It is true that as the public sector becomes the major employer in the country it can wield much influence in the market for such personnel; but this will only be effective in the long run. In the meanwhile high calibre talent may be lost because of the lack of flexibility in the policy about emoluments. Personnel, as emphasised in the Report, is not a standardised commodity. It is true that talent is not attracted and retained merely through monetary attractions. Whether the nature of work and the total environment are such as to provide job-satisfaction is also very important. Unfortunately the situation in the public sector in this respect, as indicated in the Report, is not as satisfactory as one would expect it to be. If pseudo-egalitarian ideas make it impossible for public undertakings to adopt a more realistic and effective policy about remuneration, the problem of 'flight' is likely to continue

to plague these undertakings.

While the Government of India has not taken any new steps recently to meet this problem, there seems to be an increasing awareness at the highest levels in Government about its importance. This creates some hope that a more flexible and realistic policy would be accepted by Government in the near future.

August 31, 1963

APPENDICES



APPENDIX I

THE ASSIGNMENT

A Note on the Study Regarding Technical Personnel in Public Undertakings

Objectis

The main object is to find out how far there is a 'Flight of Personnel' due to migrations among enterprises in the public sector and to what extent the disparities in scales of pay and other conditions of service are responsible for it. Incidentally it may also be examined whether there is any serious problem of flight from the public to the private sector. On the basis of this study of facts, an analysis of the problem together with recommendations on the broad lines of policy to be pursued should be prepared.

Scope

The study should cover all state undertakings (in the manufacturing and public utility services fields) operating under the control of the Ministries of Commerce and Industry, Steel, Mines and Fuel, Transport and Communications, Irrigation and Power, and Works, Housing and Supply. It should cover the problem mainly in relation to higher technical personnel (*i.e.* excluding administrative and clerical personnel as well as 'tradesmen'.)

Method of Study

The study should be based largely on the material either available with the enterprises or which can be easily collected. It should not attempt an elaborate enquiry which will require a very detailed and prolonged study and collection of facts by the enterprises. Material can be collected through questionnaires and by calling for readily available documents. Supplementary information can be obtained through discussions with management officers when they visit Delhi. Visits to enterprises may not be necessary; but this can be decided at a later stage in the light of the progress of the study.

March 10, 1961

Note

At a somewhat later stage it was decided to include in the study some enterprises under the Ministries of Defence and Railways.

APPENDIX II

QUESTIONNAIRE SENT TO PUBLIC ENTERPRISES

Points on which Information is Required

1. Pay scales of posts, from junior supervisory ranks upwards, requiring technical qualifications like:
 - (a) Certificate or Diploma or Degree in some branch of engineering;
 - (b) Diploma or Degree in accounting and cost-accounting;
 - (c) Diploma or Degree in industrial engineering or business management.

Please specify for each grade the minimum qualifications and experience prescribed.

Also specify the number of posts sanctioned in each grade and the number filled at present.

2. Information regarding:
 - (1) Rates of dearness and other allowances;
 - (2) Leave benefits;
 - (3) Any other benefit available to employees like:
 - (a) Leave travel concession;
 - (b) Free education or reimbursement of fees for children's education;
 - (c) Medical benefits;
 - (d) Subsidised housing;
 - (e) Free/subsidised supplies (e.g. coal in coal-mines);
 - (f) Free/subsidised transport.
3. Information regarding the training schemes for various categories of employees so as to ensure the supply of required personnel for your undertaking or other public undertakings.
4. In addition to this, any material readily available dealing with the following problems:
 - (a) Planning for the technical personnel required for the enterprises; in the initial stages and/or for expansion.
 - (b) Arrangements with other public/private undertakings in

India/abroad for obtaining and/or training personnel to be absorbed in this enterprise.

- (c) Difficulties experienced about obtaining/retaining particular categories of personnel and the steps taken to meet this difficulty.

If this material is available in documents, spare copies of which are not available, the material may be sent on loan and it will be returned after use.

APPENDIX III

ENTERPRISES COVERED BY THE STUDY

A. List of Public Enterprises which Sent Answers to Our Questionnaire and/or Other Information

- (1) Eastern Shipping Corporation
- (2) Fertiliser Corporation of India
- (3) Heavy Electricals
- (4) Heavy Engineering Corporation
- (5) Hindustan Cables
- (6) Hindustan Housing Factory
- (7) Hindustan Insecticides
- (8) Hindustan Machine Tools
- (9) Hindustan Salt Company
- (10) Hindustan Steel
- (11) Hindustan Teleprinters
- (12) Indian Airlines Corporation
- (13) Indian Oil Company
- (14) Indian Refineries
- (15) Integral Coach Factory
- (16) Mysore Iron and Steel Works
- (17) National Coal Development Corporation
- (18) National Projects Construction Corporation
- (19) Neyveli Lignite Corporation
- (20) Ordnance Factories
- (21) Orissa Mining Corporation
- (22) P. & T. Department
- (23) Railways

B. List of Enterprises Visited for Study

- (1) Air-India International
- (2) Bharat Electronics
- (3) Burmah-Shell Refineries
- (4) Chittaranjan Locomotive Works
- (5) Damodar Valley Corporation
- (6) Fertiliser Corporation of India—Sindri Division
- (7) Heavy Engineering Corporation
- (8) Hindustan Aircraft
- (9) Hindustan Antibiotics
- (10) Hindustan Cables
- (11) Hindustan Lever
- (12) Hindustan Machine Tools
- (13) Hindustan Steel—Headquarters, and Rourkela and Bhilai Units

- (14) Imperial Chemical Industries
- (15) Indian Oil Company
- (16) Indian Refineries
- (17) Indian Telephone Industries
- (18) National Coal Development Corporation
- (19) National Instruments Factory
- (20) National Projects Construction Corporation
- (21) Ordnance Factories (Directorate General)
- (22) Posts and Telegraphs Workshops
- (23) Posts and Telegraphs (Directorate General)
- (24) Standard Vacuum Oil Company
- (25) Tata Iron and Steel
- (26) Tata Engineering and Locomotives
- (27) Tata Chemicals (Headquarters)

